SONY®

VAIO® R505 SuperSlim Pro™ Notebook User Guide

**PCG-R505TSK, PCG-R505TS
PCG-R505TEK, PCG-R505TE**

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Notice to Users

As an ENERGY STAR Partner, Sony Corporation has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

The International ENERGY STAR Office Equipment Program is an international program that promotes energy saving through the use of computers and other office equipment. The program backs the development and dissemination of products with functions that effectively reduce energy consumption. It is an open system in which business proprietors can participate voluntarily. The targeted products are office equipment such as computers, displays, printers, facsimiles and copiers. Their standards and logos are uniform among participating nations. ENERGY STAR is a U.S. registered mark.

i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and i.LINK-compatible devices. All products with an i.LINK connection may not communicate with each other.

Please refer to the documentation that came with your i.LINK-compatible device for information on operating conditions and proper connection. Before connecting i.LINK-compatible PC peripherals to your system, such as a CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

All other trademarks are trademarks of their respective owners.

Owner's Record

The model number and serial number are located on the bottom of your Sony VAIO® R505 SuperSlim Pro™ Notebook. Record the serial number in the space provided here. Refer to the model and serial number when you call your Sony Service Center.

Model Number: PCG-6112, PCG-6122, PCG-611A, PCG-612A

Serial Number:_____

Safety Information

WARNING
❑ **To prevent fire or shock hazard, do not expose your notebook to rain or moisture.**
❑ **To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.**
❑ **Never install modem or telephone wiring during a lightning storm.**

❑ **Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.**
❑ **Never touch uninsulated telephone wire or terminals unless the telephone line has been disconnected at the network interface.**
❑ **Use caution when installing or modifying telephone lines.**
❑ **Avoid using the modem during an electrical storm.**
❑ **Do not use the modem or a telephone to report a gas leak in the vicinity of the leak.**
❑ **A socket outlet should be as close as possible to the unit and easily accessible.**

⚠ **Caution: To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.**

Caution : The use of optical instruments with this product will increase eye hazard. As the laser beam used in this product is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

For CD-RW/DVD-ROM drive, DVD-ROM drive: Danger - Visible and invisible laser radiation when open. Avoid direct exposure to beam.

AVERTISSEMENT

- **Pour prévenir tout risque d'incendie ou d'électrocution, garder cet appareil à l'abri de la pluie et de l'humidité.**
- **Pour prévenir tout risque d'électrocution, ne pas ouvrir le châssis de cet appareil et ne confier son entretien qu'à une personne qualifiée.**
- **Ne jamais effectuer l'installation de fil modem ou téléphone durant un orage électrique.**
- **Ne jamais effectuer l'installation d'une prise téléphonique dans un endroit mouillé à moins que la prise soit conçue à cet effet.**
- **Ne jamais toucher un fil téléphonique à découvert ou un terminal à moins que la ligne téléphonique n'ait été débranché de l'interface réseau.**
- **Soyez très prudent lorsque vous installez ou modifiez les lignes téléphoniques.**
- **Évitez d'utiliser le modem durant un orage électrique.**
- **N'utilisez pas le modem ni le téléphone pour prévenir d'une fuite de gas si vous êtes près de la fuite.**

- **L'appareil doit être le plus près possible d'une prise murale pour en faciliter l'accès.**

⚠️ **Attention : Afin de réduire les risques d'incendie, n'utilisez qu'un cordon de communication N0. 26 AWG ou plus gros.**

Avertissement - L'utilisation d'instruments optiques avec ce produit augmente les risques pour les yeux. Puisque le faisceau laser utilisé dans ce produit est dommageable pour les yeux, ne tentez pas de désassembler le boîtier. Adressez-vous à un agent de service qualifié.

Pour les lecteur CD-RW/DVD-ROM, lecteur DVD-ROM: Danger : Radiation laser visible et invisible si ouvert. Évitez l'exposition directe au faisceau.

If you have any questions about this product, you can reach the Sony Customer Information Service Center at 1-888-4SONYPC; or write to the Sony Customer Information Service Center at 12451 Gateway Blvd., Ft. Myers, FL 33913, or find Sony Customer Service on the Web at: http://www.sony.com/pcsupport.

Regulatory Information

Declaration of Conformity

Trade Name:	SONY
Model No.:	PCG-6112 PCG-6122 PCG-611A PCG-612A
Responsible Party:	Sony Electronics Inc.
Address:	680 Kinderkamack Rd. Oradell, NJ 07649
Telephone:	201-930-6972

This phone number is for FCC-related matters only.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

❑ Reorient or relocate the receiving antenna.

❑ Increase the separation between the equipment and the receiver.

❑ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

❑ Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Only peripherals (computer input/output devices, terminals, printers, etc.) that comply with FCC Class B limits may be attached to this computer product. Operation with noncompliant peripherals is likely to result in interference to radio and television reception.

All cables used to connect peripherals must be shielded and grounded. Operation with cables, connected to peripherals, that are not shielded and grounded, may result in interference to radio and television reception.

FCC Part 68

This equipment complies with Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC Ringer Equivalence Number (REN) for this equipment. If requested, this information must be provided to the telephone company.

This modem uses the USOC RJ-11 telephone jack.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In

most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

If the terminal equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operations of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, you can reach the Sony Customer Information Service Center at 1-888-4SONYPC; or write to the Sony Customer Information Service Center at 12451 Gateway Blvd., FL 33913, or find Sony Customer Service on the web at http://www.sony.com/pcsupport.

Repair of this equipment should be made only by a Sony Service Center or Sony authorized agent. For the Sony Service Center nearest you, call 1-888-4SONYPC (1-888-476-6972).

This equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state and possible provincial tariffs. (Contact the state or provincial utility service commission, public service commission, or corporation commission for information.)

Telephone Consumer Protection Act of 1991 (United States)

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone facsimile machine unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity, or individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual.

In order to program this information into your facsimile machine, see your fax software documentation.

Telephone Consumer Guidelines (Canada)

Please refer to your telephone directory under 'Privacy Issues' and/or 'Terms of Service.' For more detailed information, please contact:

CRTC
Terrasses de la Chaudiére, Tour centrale
1 promenade du Portage, 5 étage Hull PQ K1A 0N2.

This Class B digital apparatus complies with Canadian ICES-003.

Cet àppareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Disposal of Lithium-Ion Battery

You can return your unwanted lithium-ion batteries to your nearest Sony Service Center or Factory Service Center.

✍ In some areas the disposal of lithium-ion batteries in household or business trash may be prohibited.

For the Sony Service Center nearest you, call 1-888-476-6972 in the United States or 1-800-961-7669 in Canada. Also use Sony Customer Service on the web at http://www.sony.com/pcsupport.

⚠ **Do not handle damaged or leaking lithium-ion batteries.**

Ne pas manipuler les batteries au lithium-ion qui fuient ou sont endommagées.

⚠ **Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.**

Une batterie non conforme présente un danger d'explosion. La remplacer seulement par une batterie identique ou de type équivalent recommandé par le fabricant. Évacuer les batteries usées selon les directives du fabricant.

⚠ **The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 212°F (100°C) or incinerate. Dispose of used battery promptly.**
Keep away from children.

La manutention incorrecte du module de batterie de cet appareil présente un risque d'incendie ou de brûlures chimiques. Ne pas démonter, incinérer ou exposer à une température de plus de 100°C. Évacuer promptement la batterie usée. Garder hors de portée des enfants.

Industry Canada Notice

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection.

The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Equipment malfunctions or any repairs or alterations made by the user to this equipment may give the telecommunications company cause to request that the user disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5. The Ringer Equivalence Number for this equipment is 0.2.

Avis de L'Industrie Canada

AVIS: L'étiquette d'Industrie Canada identifie le matériel homologué.

Cette étiquette certifie que le matériel est conforme aux normes de protection, d'exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents concernant les exigences techniques relatives au matériel terminal. Le Ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêche pas la dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être coordonnées par un représant désigné par le fournisseur. L'entreprise de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

Avertissement: L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.

AVIS: L'indice d'équivalence de la sonnerie (IES) assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface.

La terminaison d'une interface téléphonique peut consister en une combinaison de quelques dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5.

L'indice d'équivalence de la sonnerie de ce matériel est de 0.2.

Contents

Welcome

Congratulations on your purchase of the Sony VAIO® notebook. Sony has combined leading-edge technology in audio, video, computing, and communications to provide you with State-of-the-art personal computing.

Features

Here are some of the features your notebook offers:

For complete specifications of your VAIO Notebook, see "Specifications" ..

❏ **Exceptional performance —** Your notebook includes a Mobile Intel® Pentium® III processor featuring Intel® SpeedStep™ technology[*] and a V.90-compatible K56flex modem.[†]

❏ **Portability —** Rechargeable battery pack provides hours of use without AC power.

❏ **Sony audio and video quality —** High-quality MPEG2 video, which supports full-screen display (12.1-inch Active Matrix LCD screen) and enables you to take advantage of today's advanced multimedia applications, games, and entertainment software.

❏ **Microsoft Windows® Operating System —** Your system includes Microsoft® Windows® Millennium Edition or Microsoft® Windows® 2000 Professional.

❏ **Communications —** Access popular online services, send e-mail, browse the Internet, and use fax features.

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[*] Processor may be reduced to a lower operating speed when operating on battery power.

[†] Actual upload and download speeds may vary due to line conditions, ISP support, and government regulations.

Unpacking Your Notebook

Remove the following hardware, documentation, and CDs from the box:

Hardware
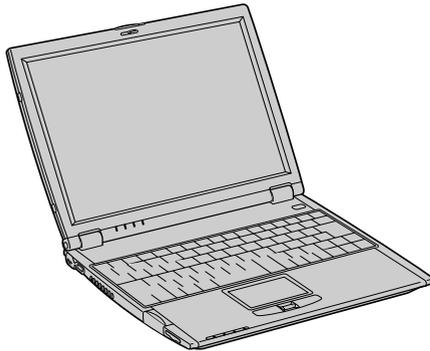
Main Unit   ### *Power Cord*
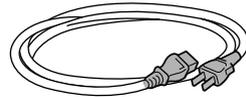
AC Adapter
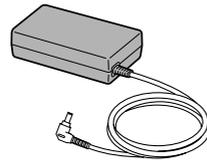
Rechargeable Battery Pack
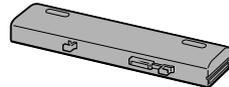
Manuals

❑ ***VAIO® Quick Start*** — Contains details on unpacking and setting up your notebook, supplementary updates, and software information.

Operating System Getting Started

❑ ***Microsoft® Windows® Millennium Edition Getting Started manual or the Microsoft® Windows® 2000 Professional Getting Started manual*** — Explains how to use the basic features of this latest Windows operating system.

Software CDs

❑ **Microsoft® Word 2000 —** Allows you to reinstall Microsoft Word 2000 to the Sony computer you purchased.

Recovery CDs

❑ **Application Recovery CD(s) —** Allows you to reinstall individual applications or device drivers if they are corrupted or erased.

❑ **System Recovery CD(s) —** Allows you to restore the software titles that shipped with your computer if they become corrupted or are erased. It can be used only to restore the hard disk of the Sony computer you purchased.

❑ **Driver Recovery CD(s) —** Allows you to reinstall individual device drivers and repair software applications if they become corrupted or are erased.

✎ To use these recovery CDs, you need to purchase either the optional PCGA-DSM5 CD-RW/DVD Docking Station or the optional PCGA-DSD5 DVD Docking Station.

Other

❑ Packet containing special product offers

Notes on Use

You will be using your notebook as a portable device in a variety of environments. Whenever possible, you should comply with ergonomic guidelines in both stationary and portable environments.

Ergonomic Guidelines

❑ **Position of your computer** — Place the computer directly in front of you as you work. Keep your forearms horizontal, with your wrists in a neutral, comfortable position while using the keyboard, touchpad, or external mouse. Let your upper arms hang naturally at your sides. Take breaks during sessions with your computer. Excessive use of the computer may strain muscles or tendons.

❑ **Furniture and posture** — Sit in a chair with good back support and armrests. Adjust the level of the chair so your feet are flat on the floor. A footrest may make you more comfortable. Sit in a relaxed, upright posture and avoid slouching forward or leaning far backward.

❑ **Viewing angle of the computer's display** — Use the display's tilting feature to find the best position. You can reduce eye strain and muscle fatigue by adjusting the tilt of the display to the proper position. Adjust the brightness setting of the display also.

❑ **Lighting** — Choose a location where windows and lights do not create glare and reflection on the display. Use indirect lighting to avoid bright spots on the display. You can also purchase accessories for your display that help reduce glare. Proper lighting adds to your comfort and work effectiveness.

❑ **Placement of an external display** — When using an external display, set the display at a comfortable viewing distance. Make sure the display screen is at eye level or slightly lower when you are sitting in front of the monitor.

Recommended Position

Computer positioned directly in front of you

Arms at desk level

Wrists relaxed and flat
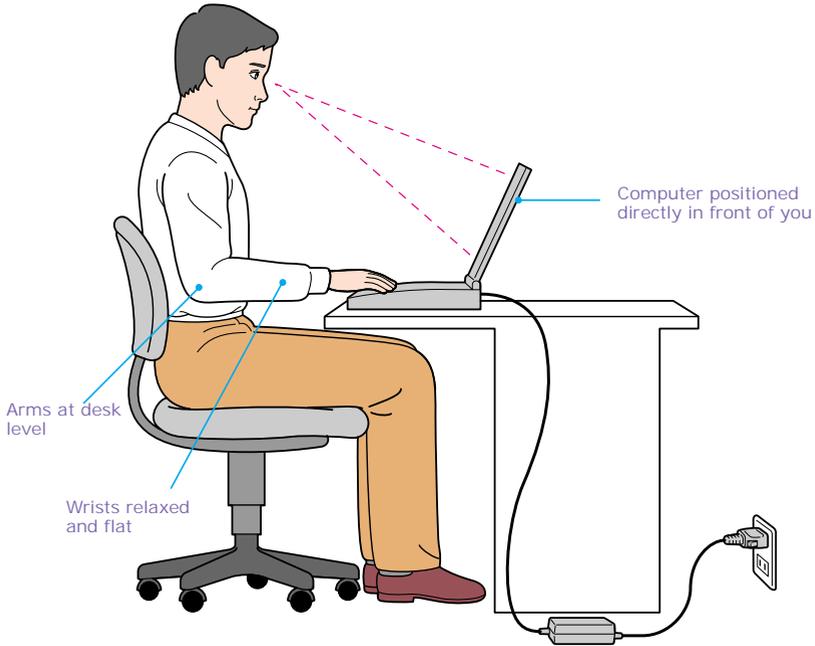
Setting Up Your Notebook

❑ Do not place your computer in a location subject to:

  ❑ Heat sources, such as radiators or air ducts

  ❑ Direct sunlight

  ❑ Excessive dust

  ❑ Moisture or rain

  ❑ Mechanical vibration or shock

  ❑ Strong magnets or speakers that are not magnetically shielded

  ❑ Ambient temperature of more than 95º F (35º C) or less than 41º F (5º C)

  ❑ High humidity

❑ Do not place electronic equipment near your computer. The computer's electromagnetic field may cause a malfunction.

❑ Provide adequate air circulation to prevent internal heat buildup. Do not place your computer on porous surfaces such as rugs or blankets, or near materials such as curtains or draperies that may block its ventilation slots. Leave a space of at least 8 inches (20 cm) behind the back panel of the computer.

❑ If the computer is brought directly from a cold location to a warm one, moisture may condense inside your computer. In this case, allow at least an hour before turning on your computer. If any problems occur, unplug your computer, and contact your Sony Service Center.

❑ The computer uses high-frequency radio signals and may cause interference to radio or TV reception. Should this occur, relocate the computer a suitable distance away from the set.

❑ Use only specified peripheral equipment and interface cables; otherwise, problems may result.

❑ Do not use cut or damaged connection cables.

❑ Your computer will not work with party lines, cannot be connected to a coin-operated telephone, and may not work with multiple phone lines or a private branch exchange (PBX).

❑ If the telephone company makes a service call to your home or office and determines that your computer is responsible for a problem, the telephone company may bill you for the service call. Also, if you do not disconnect your computer when it is adversely affecting the telephone line, the telephone company has the right to disconnect your service until you correct the problem.

Handling Your Notebook

❑ Clean the cabinet with a soft, dry cloth or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzine, as these may damage the finish of your computer.

❑ Should any solid object or liquid fall into the computer, shut down your computer and then unplug it. You may want to have the computer checked by qualified personnel before operating it any further.

❑ Do not drop the computer or place heavy objects on top of the computer.

Cleaning Your Notebook

❑ Make sure to disconnect the power cord before cleaning the computer.

❑ Avoid rubbing the LCD screen as this can damage the screen. Use a soft, dry cloth to wipe the LCD screen.

❑ Clean the computer with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent, such as alcohol or benzine.

Handling the LCD Screen

❑ Do not leave the LCD facing the sun as it can damage the LCD. Be careful when using the computer near a window.

❑ Do not scratch the LCD or exert pressure on it. This could cause malfunction.

❑ Using the computer in low temperature conditions may produce a residual image on the screen. This is not a malfunction. When the computer returns to normal temperature, the screen returns to normal.

❑ The screen becomes warm during operation. This is normal and does not indicate a malfunction.

❑ The LCD is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD. This is a normal result of the manufacturing process and does not indicate a malfunction.

Setting Up Your VAIO® Notebook

This section describes the controls and connectors on your VAIO Notebook and optional docking station, how to connect your notebook to a power source, and how to start and shut down your notebook.

Locating Controls and Connectors

Front
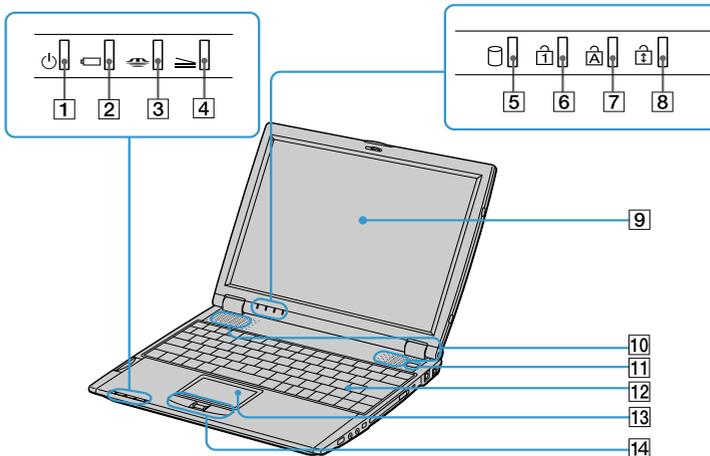
1	Power indicator	8	Scroll lock indicator
2	Battery indicator	9	LCD screen
3	Memory Stick® indicator	10	Speakers
4	Docking Station Indicator	11	Power button
5	Hard disk drive indicator	12	Keyboard
6	Num lock indicator	13	Touchpad
7	Caps lock indicator	14	Left and right buttons

Back
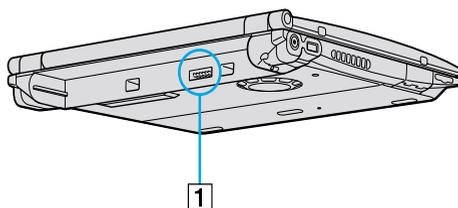
1	Battery connector

Left
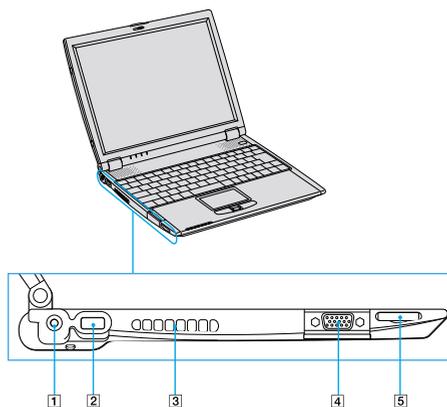
1	DC In connector
2	USB connector
3	Air vent
4	Monitor connector
5	Memory Stick® slot

Right
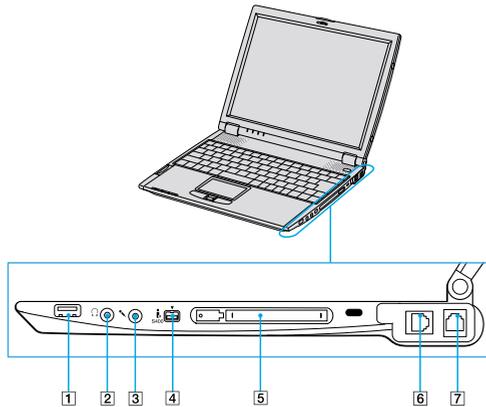
1	∀ USB connector	*5*	PC card slot
2	Headphone jack	*6*	⬚ Ethernet connector
3	Microphone jack	*7*	Phone line jack
4	i.LINK® (IEEE1394) S400 connector		

⚠ **Warning: Connect only 10BASE-T and 100BASE-TX cables to the ⬚ (Ethernet network) connector. Do not connect to the Ethernet connector any other type of network cable or telephone line. Connecting cables other than those listed above may result in an electric current overload and could cause a malfunction, excessive heat, or fire in the connector. To connect the unit to the network, contact your network administrator.**

✍ Gently pull the rubber tab away from the notebook to find the ethernet connector and phone line jack.

Rubber tab
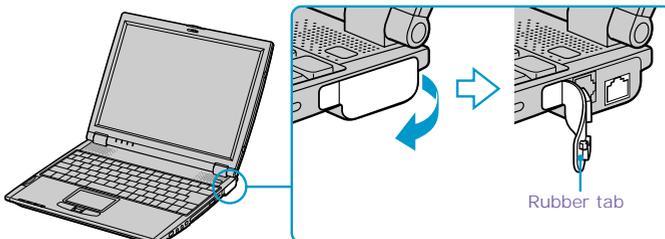
Bottom
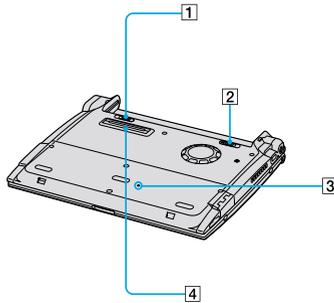
1	Battery unlock lever	*3*	Reset switch
2	Battery unlock/lock lever	*4*	Docking station connector

Connecting a Power Source

You can use either AC power or a rechargeable battery pack as a power source.

Using the AC Adapter

1   Plug the cable attached to the AC adapter into the DC In connector on the computer.

2   Plug one end of the power cord into the AC adapter.

3   Plug the other end of the power cord into an AC outlet.

Connecting AC Adapter
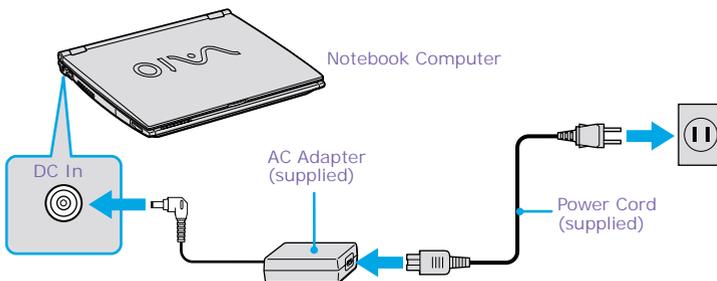
Notes on the AC Adapter

❑ Your computer operates on 100-240V AC 50/60 Hz.

❑ Do not share the AC outlet with other power-consuming equipment, such as a copy machine or shredder.

❑ You can purchase a power strip with a surge protector. This device prevents damage to your computer caused by sudden power surges such as those that may occur during an electrical storm.

❑ Do not place heavy objects on the power cord.

❑ To disconnect the cord, pull it out by the plug. Never pull the cord itself.

❑ Unplug your computer from the wall outlet if you will not be using the computer for a long time.

❑ When the AC adapter is not used, unplug it from the AC outlet.

❑ Use only the AC adapter supplied. Do not use any other AC adapter.

Using Battery Power

You can use a battery pack as a source of power. The battery pack that comes with your notebook is not fully charged at the time of purchase. Follow the steps below to insert and charge the battery pack.

To insert the battery pack

You can insert or remove the battery pack without turning off the computer when your computer is connected to the AC adapter. Before inserting or removing a battery pack, close the cover.

1   Switch the unlock/lock lever on the bottom of the computer to the UNLOCK position.

Unlock/Lock Lever

Unlock/Lock Lever
Unlock Lever
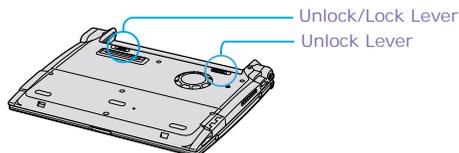
2   Align the grooves and tabs on the battery with the tabs and notches on the back of the notebook, and then slide the battery toward the computer until it clicks into place.

Inserting Battery Pack
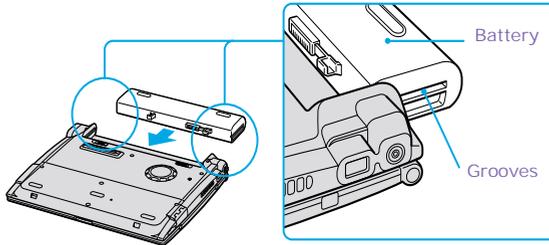
3   Slide the lock lever into the **LOCK** position to secure the battery on the notebook.

To charge the battery pack

1   Connect the AC adapter to the notebook.

2   Insert the battery pack.

The battery is charging whether or not the notebook is powered on or off. The battery indicator light flashes in a double-blink pattern as the battery charges. When the battery is 85% full, the battery indicator light turns off. This process takes approximately one and one half hours if the notebook is powered off. To charge the battery completely, continue charging it for an additional hour.

The ⊟ battery indicator light on the front of the computer indicates the status of the battery pack.

Battery Indicator Light

Battery Pack (supplied)
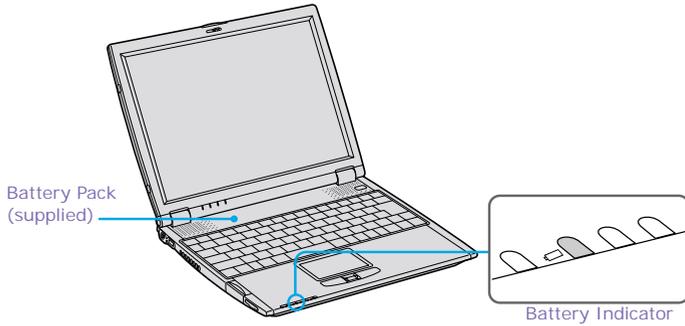
Battery Indicator

Battery Indicator Light Status	Meaning
On	The computer is using battery power.
Single blink	The battery is running out of power.
Double blink	The battery is charging.
Off	The computer is using AC power.

✎ Both the battery and power indicators blink when the battery is running out of power.

To remove the battery pack

You can insert or remove the battery pack while your notebook is on or off. However, if you insert or remove the battery pack while your notebook is on, make sure the computer is connected to the AC adapter.

1   Close the cover of the notebook.

2   Slide the lock lever to the **UNLOCK** position.

3   Slide the release lever to the **UNLOCK** position and slide the battery away from the notebook.

Removing Battery Pack

Battery Release Lever

Lock Lever
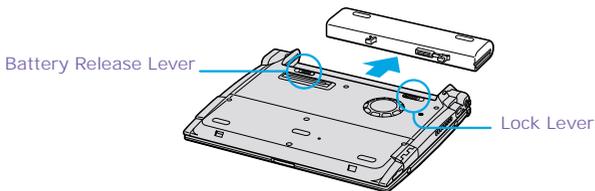
✍ You may lose data if you remove the battery pack while the notebook is on and not connected to the AC adapter or if you remove the battery while the notebook is in a power saving mode.

Additional Notes On Batteries

❑   Keep the battery pack in the notebook while it is connected to AC power. The battery pack continues to charge while you are using the computer.

❑   If your battery level falls to less than 10%, you should either attach the AC adapter to recharge the battery or shut down your notebook and insert a fully-charged battery.

❑   You can extend battery life by changing the power management modes in the PowerPanel utility. See "Using Power Saving Modes" .

❑   The battery pack supplied with your notebook is a lithium-ion battery and can be recharged at any time. Charging a partially discharged battery does not affect battery life.

❑   The battery indicator light is on while you use the battery pack as a power source. When battery life is nearly depleted, the battery indicator flashes.

❑ Your notebook may not enter Hibernate mode when the battery life is low if certain software applications are active or if certain peripheral devices are connected. To avoid loss of data when using battery power, save your data frequently and manually activate a power management mode.

❑ Never leave the battery pack in temperatures above 140° F (60° C), such as under direct sunlight or in a car parked in the sun.

❑ Battery life is shorter in a cold environment. This is due to decreased battery efficiency at low temperatures.

❑ Charge the batteries at temperatures between 50° F and 80° F (10° C to 30° C). Lower temperatures require a longer charging time.

❑ While the battery is in use or being discharged, the battery pack heats up. This is normal and is not cause for concern.

❑ Keep the battery pack away from all sources of heat.

❑ Keep the battery pack dry.

❑ Do not open or try to disassemble the battery pack.

❑ Do not expose the battery pack to any mechanical shock.

❑ If you are not using the notebook for an extended period of time, remove the battery pack from the computer to prevent damage to the battery.

❑ If, after fully charging the battery pack, the battery power is still low, the battery pack may be reaching the end of its life and should be replaced.

❑ You do not need to discharge the battery before recharging.

❑ If you have not used the battery pack for a considerable amount of time, recharge the battery.

Starting Your Notebook

1   Slide the LCD lock lever in the direction of the arrow, and lift the cover.

Opening Notebook

LCD Lock Lever
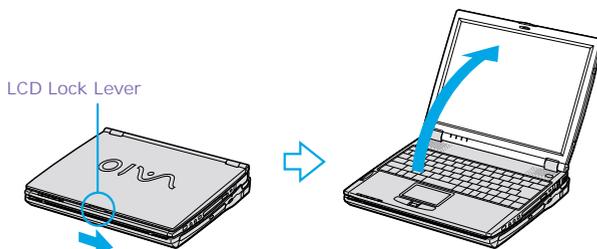
2   Press the power button located on the right side of the notebook until the green power indicator light turns on.

✎ (Windows Me only) The VAIO InitManager dialog box appears, when starting your notebook for the first time. Select "OK" to begin initial setup. If you do not execute the initial setup, you cannot use part of the VAIO original hardware functions, such as Center Jog Control, Power Management tool, touchpad scroll function, and keyboard shortcut key function combined with the Fn key.

Turning on Notebook

Power Indicator
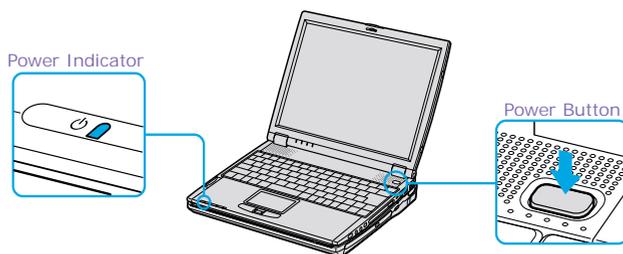
Power Button

✎ If you hold the power button in the On position for more than four seconds, the notebook turns off.

3   If necessary, adjust the brightness controls for the LCD display. To decrease the brightness, press Fn+F5 and then the down or left arrow key. To increase the brightness, press Fn+F5 and then the up or right arrow key.

Shutting Down Your Notebook

⚠️ **To avoid potential loss of data, follow these steps to shut down your notebook.**

1 Click the Start button on the Windows® taskbar.

2 Click Shut Down at the bottom of the Start menu to display the Shut Down Windows dialog box.

3 Select Shut down.

4 Click OK.

✎ Respond to any prompts warning you to save documents.

5 Wait for your notebook to turn off automatically. It is off when the power indicator light turns off.

6 Turn off any peripherals connected to your notebook.

✎ During a period of inactivity, you can conserve battery life by using Standby mode. See "Controlling Power Management" for more information.

If you are unable to shut down your notebook:

1 Close or end all operations.

- ❑ Close all applications.
- ❑ Remove the PC cards.
- ❑ Disconnect USB devices.

2 Then, restart the notebook. You can restart your computer by pressing the Ctrl+Alt+Delete keys (at the same time).

✎ If you are still unable to shut down the computer, you can press the power button and hold it for four seconds. This operation may result in data loss.

Using Your VAIO® Notebook

Using the Keyboard

Although the notebook keyboard is very similar to that of a typewriter, the keyboard has additional keys that perform specific computer-related tasks.

Keyboard

Function Keys

Print Screen Key

Correction Keys

Backspace Key

Shift Key

Fn Key

Fn Key

Ctrl Key

Windows Key

Alt Key

Numeric Keypad Area

Applications Key

Navigation Keys
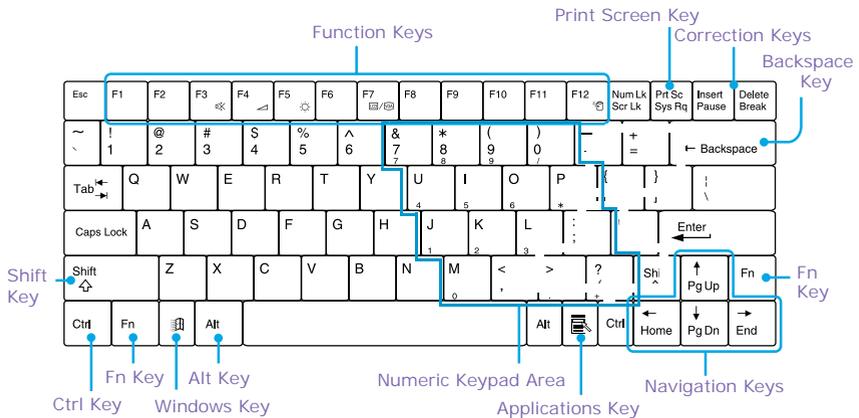
The Notebook Keyboard Keys

Key	Description
Numeric keypad area	The numeric keypad area contains the keys found on a typical calculator. Use this area to type numbers or to perform mathematical calculations such as addition and subtraction. Note the following: • To activate the numeric keypad, press the Num Lock key, which causes the Num Lock light to come on and remain on until the numeric keypad is deactivated. • To deactivate the Num Lock key, press the Num Lock key again, which causes the Num Lock light to go off.
Navigation keys	The Left/Right/Up/Down arrows are devoted to move the cursor on the screen and also function as the Home, End, Page Up, and Page Down keys, respectively.
Correction keys	The Insert, Backspace, and Delete keys enable you to make corrections in your documents.
Function keys	The 12 function keys along the top of the keyboard are used to perform designated tasks. For example, in many applications, F1 is the Help key. The task associated with each function key may vary from one application to the next.
Escape key	The Esc (Escape) key is used to cancel commands.
Print Screen key	The Print Screen key takes an electronic snapshot of the screen and places it in the Windows Clipboard. You can then paste the screen shot into a document and print it.
Operator keys	Several keys are always used with at least one other key: Ctrl, Alt, and Shift. When held down with another key, the Ctrl (Control) and Alt (Alternate) keys offer another way to give commands. For example, in many applications, instead of choosing the Save command from a menu, you can hold down Ctrl and press S (referred to as Ctrl+S). The Shift key operates the same way as on a typewriter; it is used to produce capital letters or special symbols such as @ and $.
Windows key	The key with the Windows logo displays the Windows Start menu; it is the equivalent of clicking the Start button on the task bar. See "Indicators" .
Fn key	The Fn keys at the left and right sides work the same and are used in combination with other keys to issue commands. See "The Fn Key in Combination with Other Keys" .
Applications key	The Applications key displays a shortcut menu of context-sensitive choices; pressing this key is the equivalent of clicking the right mouse button.

Indicators

Indicator	Function
Power ⏻	Light is green when the notebook is powered on, flashes umber when the notebook is in Standby mode, and turns off when the notebook is in Hibernate mode or is powered off.
Battery ▭	Indicates the status of the battery, which is attached at the rear of the notebook.
Memory Stick	Indicates the Memory Stick slot is in use.
Docking Station	Indicates the Docking Station is in use.

Light	On	Off
Hard disk	Data is being read from or written to the hard drive. Do not enter Standby mode or turn off the notebook when this indicator light is on.	The hard drive is not being accessed.
Num Lock	The number keys in the numeric keypad are active.	The character keys in the keypad area are active.
Caps Lock	Letters appear in uppercase as you type. The Shift key lowers the case of typed letters when Caps Lock is on.	Letters appear in lower case as you type (unless you hold down the Shift key).
Scroll Lock	The screen scrolls differently. (Exactly how it scrolls depends on the specific application. It has no effect in many applications.)	Information moves across the display normally.

The Windows Key in Combination with Other Keys

Combination	Function
▦ + F1	Displays Windows Help.
▦ + Tab	Switches the selected button on the taskbar.
▦ + E	Displays Windows Explorer.

Combination	Function
⊞ + F	Displays the Windows Find: All Files window to find a file or folder. This is the equivalent of selecting Find then Files or Folders from the Start menu.
⊞ + Ctrl + F	Displays the Windows Find: Computer window where you can locate other computers. This is the equivalent of selecting Find then Computer from the Start menu.
⊞ + M	Minimizes all displayed windows.
Shift + ⊞ + M	Returns all minimized windows to their previous size.
⊞ + R	Displays the Run window. This is the equivalent of selecting Run from the Start menu.
Fn + ⊞ + Insert	Displays the Properties window. This is the equivalent of clicking the System icon in the Control Panel.

The Fn Key in Combination with Other Keys

Combination/ Feature	Functions
Fn+ F3 Speaker switch	Toggles the built-in speaker off and on.
Fn+ F4 Speaker volume	Adjusts the built-in speaker volume. To increase volume, press Fn+F4, then ↑ or →. To decrease volume, press Fn+F4, then ↓ or ←.
Fn+ F5 Brightness control	Adjusts brightness of the LCD. To increase light intensity, press Fn+F5, then ↑ or →. To decrease light intensity, press Fn+F5, then ↓ or ←.
Fn+ LCD / VGA (F7) Switch to the external display	Toggles through the LCD and external display. Only LCD → LCD and external display → Only external display
Fn+ Zz (F12) Hibernate	Provides for the lowest level of power consumption. When you execute this command, the state of the system and state of the peripheral devices are written to the hard disk and the system power is turned off. To return the system to the original state, use the power switch to turn on power.
Fn +F Display control	Minimizes or maximizes the display window. Maximizing the display window allows you to view the display at a greater resolution.
Fn+D Video standby	Turns off the LCD to save power. To turn the LCD back on, press any key (Windows Me™ only).

✎ You can also carry out these functions using the Jog Dial Control. Some functions are not available until Windows launches.

Using the Touchpad

The keyboard contains a cursor-pointing device called a touchpad. You can point to, select, drag, and scroll objects on the screen using the built-in touchpad.

Touchpad

Pointer

Touchpad

Right Button

Left Button
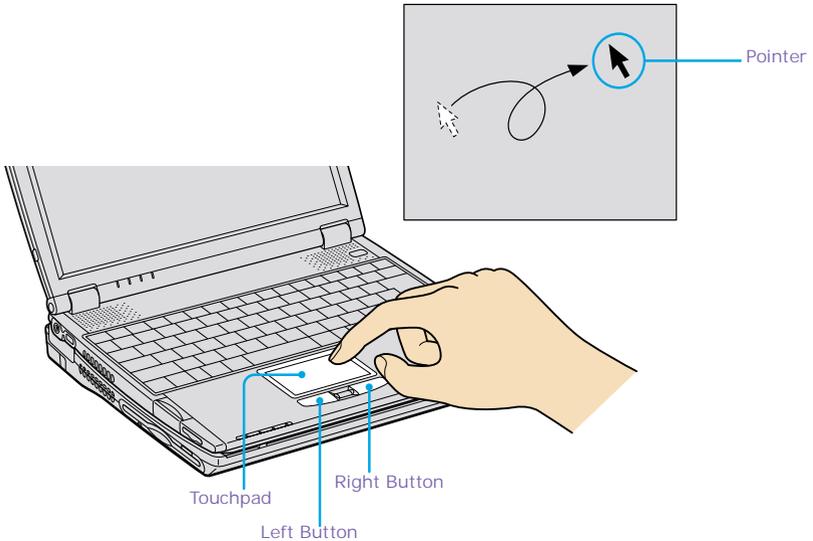
Actions	Descriptions
Point	Slide one finger on the touchpad to place the pointer on an item or object.
Click	Press the left button once.
Double-click	Press the left button twice.
Right-click	Press the right button once. In many applications, this action displays a shortcut menu of context-sensitive choices.
Drag	Slide one finger while pressing the left button.
Scroll	Move your finger along the right edge of the touchpad to scroll vertically. Move your finger along the bottom edge to scroll horizontally. (The scroll function is available only with applications that support a touchpad scroll feature.)

✎ See Mouse Properties for information on touchpad features, such as clicking both buttons simultaneously, adjusting touchpad speed, and Easy Launcher functions. To access Mouse Properties, press the Start button, select Settings, and then select Control Panel. Double-click the Mouse icon in the Control Panel.

Using PC Cards

Your notebook includes a PC card slot. PC cards allow you to connect portable external devices.

✍ Note the following:

❑ The PC card slot can accommodate one Type I or Type II PC card and is compatible with a CardBus.

❑ Some PC cards may require that you disable idle devices when using the PC card. You can use Sony Notebook Setup to disable devices. See "Displaying the Sony Notebook Setup Screen" for details.

❑ Be sure to use the most recent software driver provided by the PC card manufacturer.

❑ If an "!" mark appears on the Device Manager tab in the System Properties dialog box, remove the software driver then reinstall it.

To insert a PC card

✍ You do not need to shut down the notebook before inserting or removing a PC card.

1   Insert the PC card into the PC card slot with front label facing up.

2   Gently push the card into the slot until the card is fixed into the connector and the release button pops out.

Inserting PC Card

Insert with the arrow facing forward.

PC Card
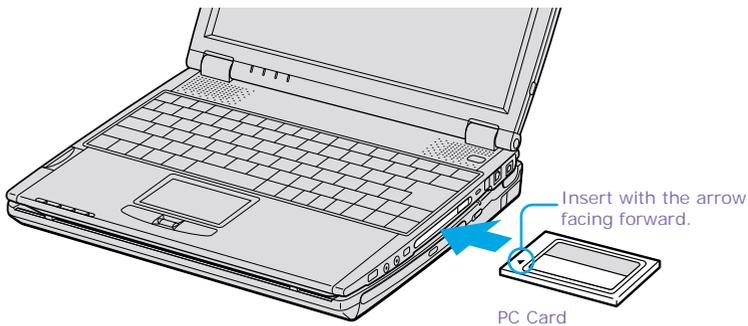
✍ Note the following:

❑ Do not force a card into the slot. It may damage the connector pins.
❑ If you have difficulty inserting a card, check that you are inserting the card with the correct orientation.
❑ Do not carry your notebook while the head of the PC card (such as a wireless LAN card) is out of the slot. Pressure or shock may damage the connector pins.
❑ See the manual that came with your PC card for more information on its use.

To remove a PC card

✍ If your notebook is turned on, perform the following procedure to remove the PC card from the computer. Otherwise, your system might crash and you might lose data that you did not previously save.

If your notebook is turned off, do not perform this procedure.

1   Close any application that uses the PC card, otherwise data may be lost.

2   Click the Unplug or Eject Hardware icon in the taskbar and select the card.

3   Click Stop, in the Stop a Hardware device dialog box, confirm the device to stop and click OK.

4   Click Close to close the Unplug or Eject Hardware window.

5   Pull the PC card release button up and press it in towards the notebook.

Removing PC Card
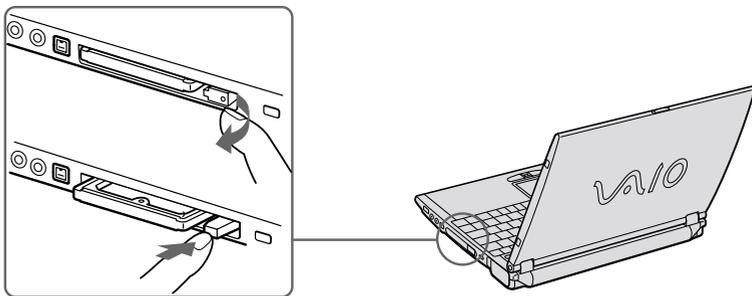
6   Gently grasp the card and pull it out.

⚠ **Do not choose a USB disk, Sony i.LINK CD-RW/DVD-ROM drive, or Sony i.LINK DVD-ROM drive.**

(Windows Me only) If you choose to remove a USB disk, the internal Memory Stick becomes disabled. Follow these steps to reactivate the USB disk:

1. **Open the Start menu and select Settings then Control Panel.**

2. **Double-click the System icon to access the System Properties window.**

3. **Click the Device Manager tab then click the Refresh button.**

4. **In the "Stop a Hardware device" dialog box, confirm that the device can be safely removed from the system.**

If you removed a Sony i.LINK CD-RW/DVD-ROM drive or Sony i.LINK DVD-ROM drive by mistake, disconnect the docking station and reconnect it. See "Disconnecting the Notebook from the Docking Station" for details.

✍ In some cases, if your notebook alternates between normal power operation and power saving mode while the PC card is inserted, the computer may not recognize the connected device. In such a case, reboot your notebook to correct the problem.

Using Smart Connect

Windows Me™

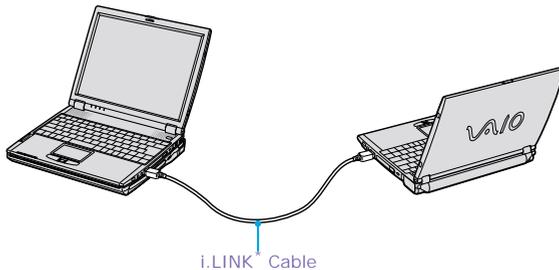You can connect your VAIO® Notebook to another VAIO Notebook that has the preinstalled Windows Me operating system or the Sony Smart Connect 3.0 software preinstalled. You may use an optional i.LINK$^{*®}$ cable to connect the two systems, then use one computer to edit, copy, or delete files on the other computer. You can also print from a printer that is attached to either computer. Select the STD mode in Smart Connect 3.0 software to connect with another computer that has Windows Me preinstalled.

Connecting with an i.LINK Cable*

i.LINK* Cable

Windows 2000

The preinstalled Smart Connect software allows you to use an i.LINK$^{*®}$ cable (optional) to connect your VAIO notebook to another VAIO computer that also has Smart Connect or preinstalled Windows Me. You can then use one computer to edit, copy or delete files on the other computer. You can also print from a printer attached to either computer.

See Smart Connect online help for more information.

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*   i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and i.LINK-compatible devices. All products with an i.LINK connection may not communicate with each other.

Please refer to the documentation that came with your i.LINK-compatible device for information on operating conditions and proper connection. Before connecting i.LINK-compatible PC peripherals to your system, such as a CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

⬧ Note the following:

❑ When you connect two VAIO computers, you must assign each computer a unique name by which it will be identified when the two computers are networked together.

❑ If you have previously purchased a VAIO computer or notebook that does not have the Windows Me operating system or Smart Connect 3.0 software preinstalled, consult the Sony website for support options (http://www.sony.com/pcsupport).

If Your Notebook is Connected to the Optional Docking Station

If you want to exchange data with another computer using the optional i.LINK cable and your notebook is connected to the docking station, perform the following:

1 Disconnect your notebook from the docking station as described in "Disconnecting the Notebook from the Docking Station" .

2 Disconnect the AC adapter and all cables from the docking station.

3 Using a thin pen tip, set the i.LINK network switch on the bottom of the docking station to the side marked ● .

> ⚠ Do not set the i.LINK network switch when the notebook is on. The computer will malfunction.

i.LINK Network Switch

i.LINK Network Switch
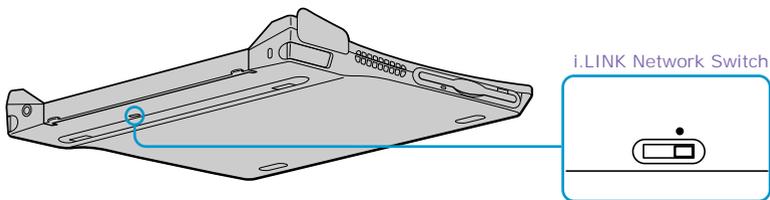
4 Connect the docking station to your notebook as described in "Connecting the Notebook to the Docking Station" .

5 Turn on the notebook, and use the i.LINK cable to connect your notebook to another computer.

6 After you have finished the tasks you needed to perform to end the "smart connect" session, proceed as follows:

❑ Disconnect your notebook from the docking station.

❑ Disconnect the i.LINK cable and all other cables from the docking station.

❑ Set the i.LINK network switch to the unmarked side.

VAIO Action Setup

VAIO Action Setup manages the settings for your notebook's Jog Dial™ Control, Memory Stick® media, and i.LINK*® interface. An overview of some of the functions controlled by VAIO Action Setup is provided below. For more information on changing the settings using VAIO Action Setup, right-click the Jog Dial Utility icon 🔲 or 🔲 in the task tray and click Help Topics.

Jog Dial™ Control

Your notebook is equipped with a Jog Dial Control located below the touchpad and between the left and right buttons. The Jog Dial Control enables you to open an application, folder, or document from a predefined list by rotating and pressing the Jog Dial Control. In addition, when you press the Jog Dial Control, you can turn on your notebook automatically and start the selected application or document.

Jog Dial Control
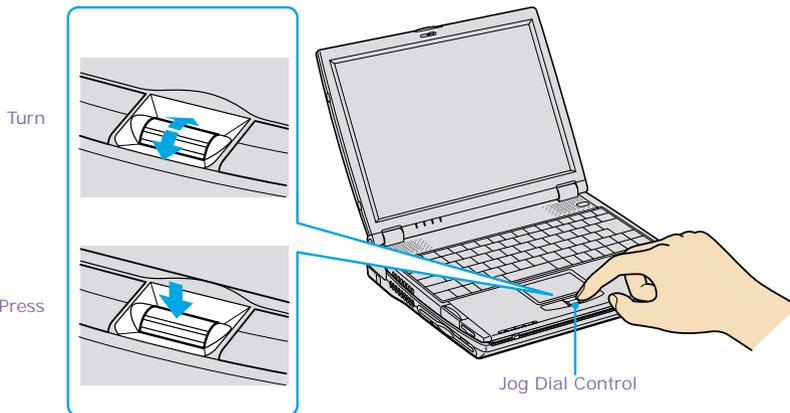
Jog Dial Control

The Jog Dial control window always appears in the display. It is either in the launcher mode or in the guide mode.

Using the Jog Dial™ Control

This section explains how to use the Jog Dial Control. For information on how to change the settings of the Jog Dial Control, right-click the Jog Dial Utility icon ▣ or 🔳 in the task tray and click Help Topics.

Launcher Mode

The Jog Dial control window is in launcher mode until a software application is launched or the Jog Dial control window becomes active. When you select an item in the Jog Dial window and it is displayed between orange bars, you can press the Jog Dial Control to view a submenu of that item.

Using Launcher Mode

To use the Jog Dial Control, click the Jog Dial control window or the Jog Dial Utility icon in the task tray. Alternatively, you can press the Ctrl key and the Jog Dial Control while the Jog Dial window is active to switch to launcher mode.

Jog Dial Launcher

To select a desired item, proceed as follows:

1   Rotate the Jog Dial Control to select the item you want, then press the Jog Dial Control. The Jog Dial Launcher window switches to guide mode and shows the function of the Jog Dial Control.

Jog Dial Guide

2   Rotate or press the Jog Dial Control to use the desired function.

3   To select another item, repeat steps 1 through 3 above.

Guide Mode

The Jog Dial control window is in the guide mode when software is in use and the software window is active. Depending on the software you are using, you can select items from the displayed list using the Jog Dial Control. You can switch between guide mode and launcher mode by pressing the Ctrl key and the Jog Dial Control.

Using Guide Mode

The Jog Dial control window displays the function of the Jog Dial Control.

Using the Jog Dial Control with Sony Software

If Sony software that supports the Jog Dial Control is active, you can use the functions of the Jog Dial Control that are allocated to that software. For more information on functions allocated to software, see the software application's online Help.

Using the Jog Dial Control with Other Software

If the software you are using does not support the Jog Dial Control, you can still use the Jog Dial Control to scroll or adjust the window size.

Using a Dialog Box

When a window such as Screen Properties is active, the Dialog box is displayed in the Jog Dial window. You can select an item in the window by rotating the Jog Dial Control. Pressing the Jog Dial Control is the equivalent of pressing Enter or Select.

Jog Dial Guide Dialog Box

Using Memory Stick® Media

This compact, portable, and versatile recording medium has a data capacity exceeding that of a floppy disk. The medium is specially designed for exchanging and sharing digital data with compatible products. Because it is removable, the media can be used for external data storage.

Types of Memory Stick Media

The following two types of Memory Stick media can be used with your notebook:

❏ MagicGate™ ⬱ media (hereafter called MG Memory Stick media), which is provided with copyright protection

❏ Memory Stick ⬱ media, which does not have the same copyright protection as MagicGate media

For music, which requires copyright protection, you can only use MG Memory Stick media with your notebook. You can also use MagicGate media-compatible devices to record and playback music when they are connected to your computer.

You can store mixed data on the Memory Stick media. For example, you can copy an image on to MG Memory Stick media that already contains music.

What is MagicGate Media?

MagicGate media provides copyright protection that consists of authentication and encryption technology. Authentication technology ensures that protected content is only transferred between compliant devices and media. Protected content is recorded and transferred in an encrypted format to prevent unauthorized duplication or playback.

✎ Ensure that the MG Memory Stick media has the MG mark 🔲.

To Insert a Memory Stick Media

1   Insert the Memory Stick media with the arrow facing upward and toward the Memory Stick media slot.

   ✎ Inserting the media in the wrong direction may damage the connector pins.

2   Carefully slide the Memory Stick media in until it clicks in place.

Inserting Memory Stick Media

Insert Memory Stick media with arrow facing forward.
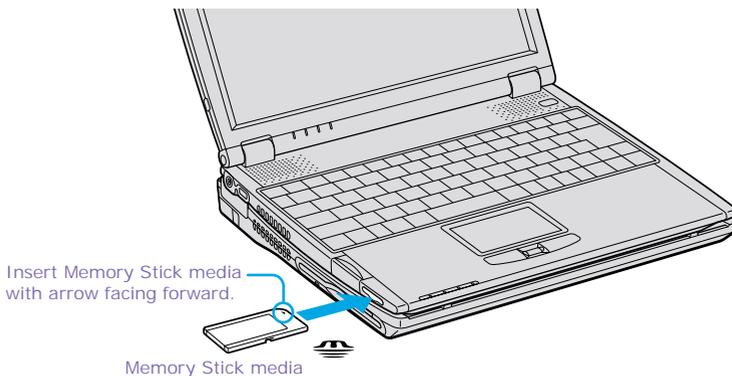
Memory Stick media

✍ At the default setting, Visual Flow application starts automatically when you insert a Memory Stick media. You can change this setting in VAIO Action Setup.

To View the Contents of Memory Stick Media

Click the Removable Disk (S:) icon under My Computer to see the contents of the Memory Stick media.

⚠ **Warning: (Windows Me models only) When copying data between Memory Stick media with different memory capacity, use the drag and drop method to copy data. Do not use the Copy Disk function of Windows. The Copy Disk function will result in the loss of the installed memory.**

To Remove a Memory Stick Media

1 Ensure that the access light is off.

2 Push the Memory Stick media in toward the computer.

3 When the Memory Stick media ejects, pull it out.

✍ Be careful when removing the Memory Stick media, as it may eject completely from the slot.

Write-protecting a Memory Stick Media

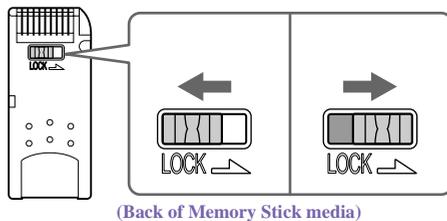Memory Stick media is designed with a write-protect tab to protect valuable data from accidental erasure or overwriting. Move the tab to the right or left to set or release write-protection.

Write-protect off	Data can be saved on the Memory Stick media.
Write-protect on	Data can be read from but not saved on the Memory Stick media.

Using the Write-protect Tab

(Back of Memory Stick media)

Formatting a Memory Stick Media

Memory Stick media is formatted for immediate use when you purchase it. If you need to reformat a Memory Stick media, use the Memory Stick Formatter that is provided with the media. Follow the procedures included here. For more details about using Memory Stick Formatter, refer to Formatter Help.

⚠️ **Reformatting erases all current data that is stored on a Memory Stick media. Before you reformat, confirm that the media does not contain files you want to keep.**

1 Insert the Memory Stick media into the notebook. See "To Insert a Memory Stick Media" for details on inserting Memory Stick media.

2 Click the Start button, point to Programs, click Memory Stick Utility, and then click Memory Stick Formatter.

3 Click Start Formatter. Memory Stick Formatter begins.

When Using Memory Stick media

✍ Note the following when using Memory Stick media:

❑ When the erasure prevention switch of the Memory Stick media is set to LOCK, data cannot be recorded or erased.

❑ Before using Memory Stick media, back up important data.

❑ Wait a minimum of 10 seconds after the Memory Stick media finishes reading or writing data before removing the media.

❑ If the media is removed prematurely, a blue screen with an error message appears, prompting you to continue or exit. Reinsert the media into the slot and press Enter to continue. This allows the media to finish reading or writing data.

❑ You can enjoy video clips that you have recorded with Memory Stick media-compatible video camera recorders.

❑ The media slot can accommodate one Memory Stick media at a time.

❑ You may copy images from a digital video camera using Memory Stick media.

❑ Only MagicGate™ Memory Stick media can be used with copyright protected data such as music.

❑ Copyright protected music cannot be checked-out to any Memory Stick media other than MG Memory Stick media.

❑ All data checked out to MG Memory Stick media from OpenMG Jukebox is in "Hifi folder". Do not attempt to modify the HiFi folder with Windows Explorer or any software other than OpenMG Jukebox. We make no reparations for data that cannot be played back or checked-in because it was edited with other applications.

❑ Recorded music is limited to private use only. Using recorded music for any other purpose requires permission of the copyright holders.

❑ Sony is not responsible for music files that cannot be recorded from a CD or downloaded from other sources.

❑ Formatting Memory Stick media erases all data (including music data) previously saved to it. Before you format Memory Stick media, confirm that the media does not contain files you want to keep.

❑ Checked-in music data may be losted if your system crashes or you use the System Recovery CDs to recover your hard disk. See the OpenMG Jukebox help file for more information.

⚠️ **Beware of the following when using Memory Stick media:**

❏ **Do not use the media in locations that are subject to static electricity or electrical noise.**

❏ **Do not touch the media connector with your finger or metallic objects.**

❏ **Do not attach labels other than the supplied label to a media.**

❏ **Do not bend, drop, or apply strong shock to the media.**

❏ **Do not disassemble or modify the media.**

❏ **Do not allow the media to get wet.**

❏ **Do not use or store the media in a location that is subject to:**

❏ **Extremely high temperatures, such as in a car parked in the sun**

❏ **Direct sunlight**

❏ **High humidity or places with corrosive substances**

❏ **To prolong the life of the media, use the supplied storage case. See the instructions that come with your media for more information on use.**

Using Power Saving Modes

When you use a battery as the source of power for your computer, you can take advantage of power management settings to conserve battery life. In addition to the normal operating mode, which allows you to turn off specific devices, your computer has two distinct power saving modes: Standby and Hibernate. When using battery power, be aware that the computer automatically enters Hibernate mode when the remaining battery charge drops below 5 percent, regardless of the power management setting you select.

✎ If the battery level falls below 10 percent, you should either attach the AC adapter to recharge the battery or shut down your computer and insert a fully charged battery.

Normal Mode

Normal mode is the normal state of your computer when it is in use. The power indicator light displays green when your computer is in this mode. To save power, you can turn off a specific device such as the LCD or the hard disk.

Standby Mode

In Standby Mode the computer saves the current state of the system in RAM and switches off power to the CPU. The umber power indicator light flashes in this mode.

To activate Standby mode

To activate Standby mode, press the power button and release it immediately. You can also use the PowerPanel utility to enter Standby mode.

To return to normal mode

Press any key to return to normal mode.

Hibernate Mode

In the Hibernate mode, the state of the system is saved on the hard drive and power is turned off. The power indicator light is off in this mode.

To activate Hibernate mode

To activate Hibernate mode, press the key combination Fn+F12.

✍ (Windows 2000) The "Save to Disk Manager" screen appears, and then the computer enters Hibernate mode.

✍ Do not move the notebook until its power indicator light turns off.

To return to normal mode

To return to normal mode, turn on the computer by pressing the power button. The computer returns to its previous state.

✍ When returning from Hibernate mode, the system status stored on the hard disk is erased and the computer starts normally if you press the power button and hold for more than four seconds.

❏   Time required to return to normal mode

    Standby requires less time than Hibernate to return to normal mode.

❏   Power consumption

    Standby uses more power than Hibernate.

Using a Phone Line

You need to connect a phone line to take advantage of online services, the Internet, and Sony Customer Support.

✍ In order to register your Sony VAIO® Notebook, register your software online, and use Sony Customer Support, you must connect the notebook to a phone line.

1   Gently peel back the rubber phone jack cover. Pulling the phone jack cover too hard could damage it.

✍ Do not plug the phone cable into the Ethernet connector ⊞ located to the left of the phone jack as this may damage your notebook.

2   Plug one end of the phone cable into the phone jack, under the phone jack cover. Make sure you insert the phone cable from the rear of the computer and that the modular jack clicks into place.

3   Plug the other end into the wall jack.

Plugging Phone Cable into Phone Jack


Phone Jack

Phone Cable (optional)
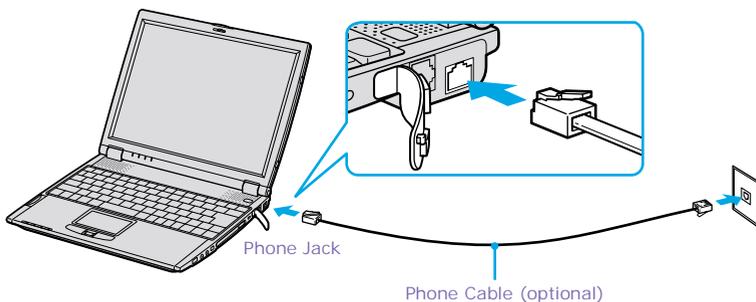
✍ Your notebook does not work with party lines, cannot be connected to a coin-operated telephone, and may not work with multiple phone lines or a private branch exchange (PBX). Some of these connections might result in excess electrical current and could cause a malfunction in the internal modem.

Using the Local Area Network (LAN)

You can connect your notebook to 10BASE-T and 100BASE-TX-type networks. For the detailed settings and devices needed to connect to the network, please ask your network administrator.

Connecting to LAN
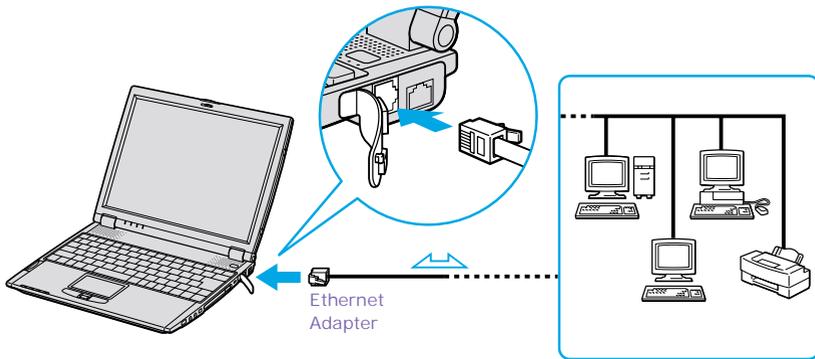
Ethernet
Adapter

⚠ **Warning: Only connect 10BASE-T and 100BASE-TX cables to the ⊞ (Ethernet network) connector. Do not connect any other type of network cable or any telephone line. Connecting cables other than those listed above may result in an electric current overload and could cause a malfunction, excessive heat, or fire in the connector. To connect the unit to the network, contact your network administrator.**

Connecting Peripheral Devices

This section describes how you can add functionality to your notebook by connecting it to a variety of peripherals, as discussed in the following sections:

❑ "Connecting the Optional Docking Station"

❑ "Connecting the Floppy Disk Drive"

❑ "Connecting an Optical Drive"

❑ "Connecting a Printer"

❑ "Connecting an i.LINK® Device"

❑ "Connecting a Universal Serial Bus (USB) Device"

❑ "Connecting External Speakers"

❑ "Connecting an External Microphone"

Connecting the Optional Docking Station

Your notebook supports an optional docking station that provides the following:

❑ A floppy disk drive.

❑ An optical (CD-RW/DVD-ROM or DVD-ROM) drive, depending on the model you purchased.

❑ A rear connector panel that enables you to connect additional peripherals to your notebook as shown below.

Rear Connector Panel

| 1 | | 2 | | 3 |

| 4 | | 5 | | 6 | | 7 |
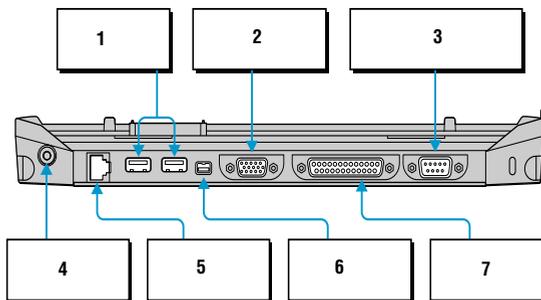
1	ψ	*USB connectors*	*5*		*Network (Ethernet 10BaseT)*
2	⬭	*Monitor connector*	*6*		*i.LINK*®* (IEEE 1394) S400 connector*
3	IOIOI	*Serial connector*	*7*		*Printer connector*
4	=	*DC In*			

Connecting the Notebook to the Docking Station

You may connect your notebook to the docking station as long as it is not in power saving mode, i.e., Standby or Hibernate. Connecting the computer while it is in power saving mode may result in data loss or a computer malfunction.

✎ Note the following *before* connecting your notebook to the docking station:

❑ Disconnect the VGA, USB, AC, and Ethernet devices from your notebook. Leaving these devices connected while you connect the docking station could damage them.

❑ Ensure that the battery is installed. If you install a charged battery, you can connect the docking station while the notebook is on.

Follow the procedure below to connect your notebook to the docking station:

1   Plug one end of the AC adapter cable into the DC In connector of the docking station and the other end into an AC outlet. The LED of the DC In connector switches on.

2   Holding the notebook with the front side facing you, insert the two holes on the front of the computer into the two corresponding latches protruding from the front side of the docking station.

Latching the Notebook to the Docking Station

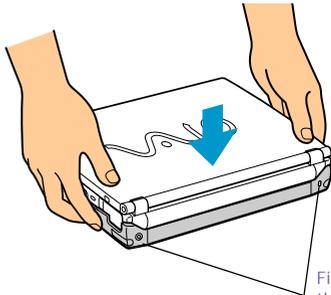Latches Protruding
from Docking Station
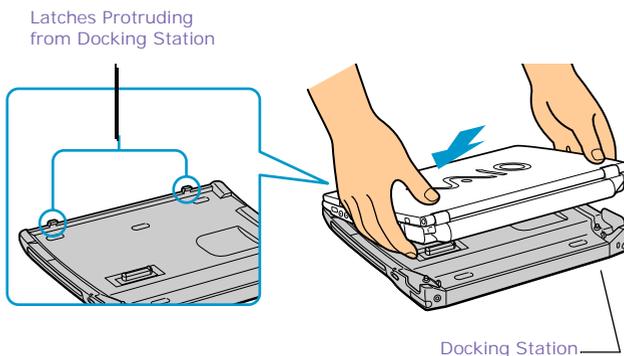
Docking Station

3   Firmly press with your thumbs the two rear corners of the notebook, until
    your computer clicks in place and is securely fastened to the docking station.

> ✍ Be careful not to press the top of the notebook too strongly; the LCD display may
> be damaged.

Securing the Notebook to the Docking Station

Firmly press down with your thumbs
the two rear corner of the Notebook

Disconnecting the Notebook from the Docking Station

There are two procedures to consider when disconnecting your notebook from
the docking station:

❑   Disconnecting the docking station when the notebook is *off*.

❑   Disconnecting the docking station when the notebook is *on*.

Perform the appropriate procedure below to disconnect the docking station.

Disconnecting the Docking Station when the Notebook is Off
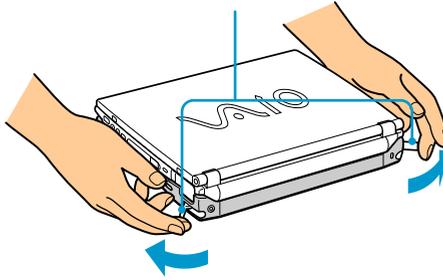
> ✍ Before disconnecting your notebook from the docking station, ensure the following:
>
> ❑   All i.LINK devices are disconnected from your notebook and docking station.
>
> ❑   No object is placed on top of the notebook.

1   Pull out the two release levers on either side of the rear corners of the
    docking station, to release the notebook from the docking station.

Releasing the Notebook from the Docking Station

Pull release levers on either side of
rear corners of docking station

2   Remove the notebook from the docking station, while moving the computer
    slightly back to disengage it from the two front latches of the docking
    station.

Removing the Notebook from the Docking Station
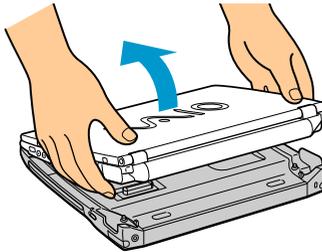
Disconnecting the Docking Station when the Notebook is On

You can use the Start Menu in the Windows task tray or the UNDOCK switch on
the docking station to disconnect your notebook from the docking station while
the notebook is on.

From the Start menu

1   Click the Start menu in the Windows task tray.

2   Select Eject PC to access the "Undock Complete" dialog box.

> ⚠   **Wait for the docking indicator light to switch off before undocking the notebook.**

> ✍ Once the "Undock Complete" dialog box appears, continue on to step 3 to finish undocking the notebook. This prevents from leaving the notebook on the docking station in this released state for too long.

Docking Indicator Light
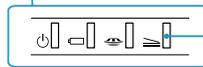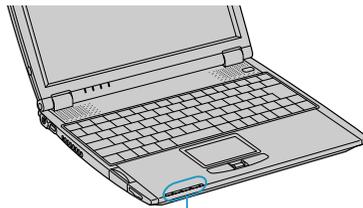
Docking
Indicator Light

3   Release and remove your notebook as described in "Disconnecting the Docking Station when the Notebook is Off" .

Using the UNDOCK switch

1   Pull the UNDOCK switch on the right side of your notebook. The "Undock Complete" dialog box appears.

> ✍ Once the "Undock Complete" dialog box appears, continue on to step 2 to finish undocking the notebook. This prevents from leaving the notebook on the docking station in this released state for too long.

UNDOCK switch

UNDOCK
Switch
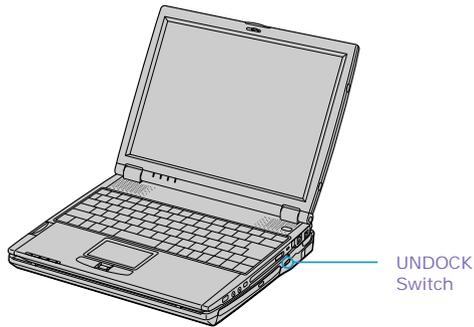
2 Release and remove your notebook as described in "Disconnecting the Docking Station when the Notebook is Off".

⚠️ **Beware of the following to ensure proper operation of your notebook:**

❑ **Do *not* disconnect the notebook from the docking station while the docking indicator is on.**

❑ **Do *not* disconnect the docking station during power saving modes, i.e., while the notebook is in Standby or Hibernate mode.**

❑ **If you do any of the above, you may lose data or cause the computer to malfunction.**

❑ **Do *not* disconnect the notebook from the docking station, if the battery power is low; you may lose data. Shut down your notebook first, then disconnect from the docking station.**

Connecting the Floppy Disk Drive

You can use the floppy disk drive in the optional docking station. If you do not utilize the docking station drive, you can connect an optional PCGA-UFD5 floppy disk drive to the USB connector ✲ on your notebook.

> ⚠ **Do not use an optional PCGA-UFD5 floppy disk drive while your notebook is connected to the docking station.**

To Insert a Diskette

1   Hold the diskette with the label side facing up.

2   Gently push the diskette into the drive until it clicks into place.

Inserting Diskette
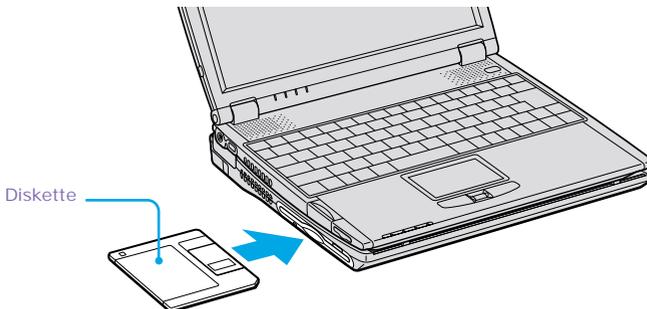
Diskette

To Remove a Diskette

❑ When you finish using the diskette, wait until the LED indicator light turns off and then press the Eject button to remove the diskette.

Removing Diskette

Eject Button
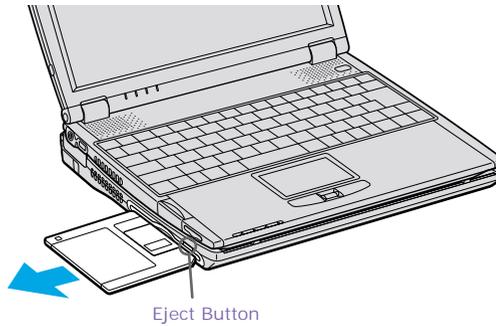
Notes on Handling Diskettes

❑ Do not open the shutter manually and touch the surface of the diskette.

❑ Keep diskettes away from magnets.

❑ Keep diskettes away from direct sunlight and other heat sources.

Connecting an Optical Drive

You can use the optional docking station, PCGA-DSD5 CD-RW/DVD or PCGA-DSD5 DVD with your notebook.

⚠ **Do not use an optional, optical docking station PCGA-CD51/A CD-ROM drive while your notebook is connected to the docking station.**

To Insert a Disc

✎ If you are using a PC card (such as a wireless LAN card) with its head out of the slot, remove it before you insert a disc.

1 Press the Eject button. The disc tray slides out.

Inserting a Disc

Eject Button
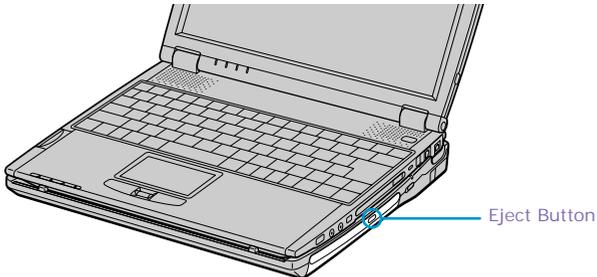
2   Place the disc in the tray with the label side facing up. Push the disc onto the hub until the disc clicks into place.

Inserting Disc
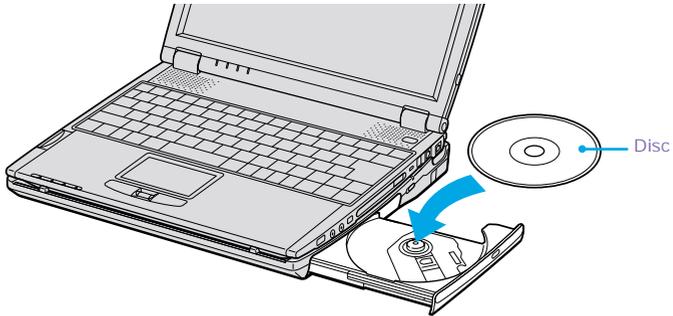
Disc

3   Close the tray by pushing it gently. The BUSY indicator on the drive flashes while your notebook reads data from the disc.

To Remove the Drive

Remove the PC card from the computer. See "Using PC Cards" for details.

✍ When the notebook is in power saving mode, the tray will not open.

Playing a DVD

❑   To achieve optimum performance when playing DVDs, it is recommended that you close all open applications before playing a DVD movie.

❑   When playing DVD movies on battery power, set the power management profile to DVD. With other profiles, the movies are choppy. As an alternative, you can set the power management profile to Automatic Profile Selection, which will cause the DVD profile to be selected automatically whenever you insert a DVD. See "Controlling Power Management" for information on how to set the power management profile.

❑   You can play DVDs using the WinDVD software. See the help file that came with the WinDVD software for details.

❑   Some discs recorded at 20 or 24 bits may produce noise while playing. If you have audio devices connected, this may cause damage to your hearing and the speakers. Reduce the volume before playing such discs..

✎ Note the following for playing a DVD video:

    ❑   Do not switch between LCD and external display while playing a DVD video.

    ❑   Do not put your notebook into power saving mode while playing a DVD video.

    ❑   Do not install the software that comes with DVD 51A drive.

⚠   **Memory-resident disc utilities, such as the screen saver and virus checker, may cause unstable operation or data loss. Deactivate these utilities (if they are active) before writing data to a disc.**

Handling and Cleaning CD and DVD Media

Proper care of the disc is essential to maintain its reliability. Therefore, always abide by the following guidelines:

Handling

❑ Do not drop or bend the disc.

❑ Do not touch the surface of the disc. Fingerprints and dust on the surface of a disc may cause read errors.

Cleaning

❑ For normal cleaning, hold the disc by its edge and use a soft cloth to wipe the surface from the center out.

❑ If the disc is badly soiled, moisten a soft cloth with water, wring it out well, and use it to wipe the surface of the disc from the center out. Wipe off any remaining moisture with a dry soft cloth.

❑ Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray, as they may cause damage to the disc.

Writing Data to CD-R/RW Media

You can use Drag'n Drop CD software to write data to a CD-R or CD-RW.

✎ Note the following when using CD-R/RW drives:

❑ For optimal writing speed, deactivate the screen saver and exit anti-virus software before writing data to a disc.

❑ For best results, use CD-Rs that are compatible with 4x speed.

❑ If your notebook has preinstalled Microsoft® Office applications, such as Excel, Word, and Outlook, turn off the FindFast application.

❑ Do not put your notebook into power saving mode while using Drag'n Drop CD.

⚠️ **Beware of the following:**

❑ **Do not strike or shake the computer while writing data to a disc.**

❑ **Memory-resident disc utilities, such as the screen saver and virus checker, may cause unstable operation or data loss. Deactivate these utilities (if they are active) before writing data to a disc.**

❑ **Always use the AC adapter as the power source for your computer when you are writing data to a CD-RW or CD-R. Using battery power may result in data transfer failure.**

Connecting a Printer

❑ You can use the optional docking station to connect a printer or other parallel connector to you notebook.

❑ You can connect a USB-compatible printer or other compatible USB device to your notebook.

✍ Turn off the notebook before connecting peripherals. In normal use, you should turn on the peripherals before turning on your notebook.

To Connect a Printer

To a Parallel Connector

1   Locate the 🖨 Printer connector on the docking station.

2   Plug the printer cable (supplied with the printer) into the Printer connector.

Connecting a Printer to the Docking Station

Power cord

To 🖨
Printer

Printer cable (supplied with the printer)
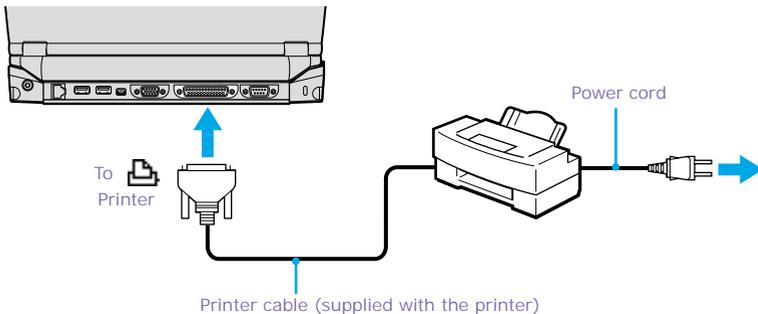
To USB Connectors

1   Locate the 🔱 USB connectors on your notebook and printer.

2   Plug the USB optional printer cable into the USB connector.

✍ Note the following:

❑ See the manuals that came with your printer for more information on printer installation and operation.

❑ Before operating the printer, ensure that the Printer setting in the Sony Notebook Setup software is properly set. See "Displaying the Sony Notebook Setup Screen" .

Connecting an i.LINK*® Device

Your VAIO Notebook includes an 🔌 i.LINK (IEEE 1394) S400 connector, which you can use to connect to a compatible i.LINK device such as a digital video camera recorder.

To Connect a Digital Video Camera Recorder

Plug one end of an i.LINK cable into the 🔌 S400 connector on the right side of the notebook and the other end into the DV In/Out connector on the digital video camera recorder. If your digital video camera recorder includes a Memory Stick® media slot, you can copy images from it to your computer via a Memory Stick media. Copy images to the Memory Stick media and insert the media into the Memory Stick media slot on your computer. For details on using Memory Stick media, see "Using Memory Stick® Media" .

Connecting Digital Video Camera Recorder
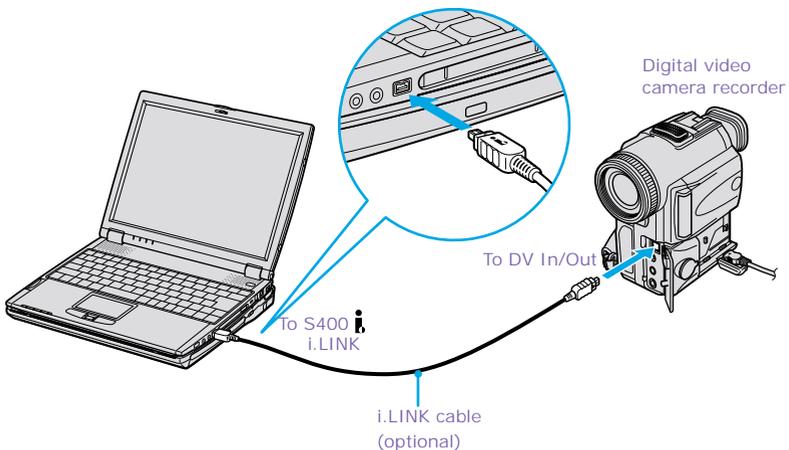
Digital video
camera recorder

To DV In/Out

To S400 🔌
i.LINK

i.LINK cable
(optional)

---

*   i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and i.LINK-compatible devices. All products with an i.LINK connection may not communicate with each other.

Please refer to the documentation that came with your i.LINK-compatible device for information on operating conditions and proper connection. Before connecting i.LINK-compatible PC peripherals to your system, such as CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

✎ Note the following:

❏ The above figure displays connection to a Sony digital video camera; your digital video camera recorder may need to be connected differently.

❏ Only Sony digital video cameras and connectors labeled "DV In/Out" or "i.LINK" are i.LINK-compatible.

❏ See the manual that came with your digital video camera recorder for more information on installation and use.

❏ The i.LINK connector does not supply power to external devices. If the external device requires power from the i.LINK connector, you cannot use the device with your notebook.

❏ The VAIO Notebook supports transfer rates up to 400 Mbps; however, the actual transfer rate is the lowest transfer rate of the external device.

❏ The i.LINK features available may vary depending on the software applications you use. See the documentation that came with your software for more information.

❏ You can connect a digital video camera to the i.LINK connector on your notebook or the i.LINK connector on the optional port replicator. When a camera is connected to the i.LINK connector on the notebook, you should not connect any other devices to the i.LINK connector on the port replicator. When a camera is connected to the i.LINK connector on the port replicator, you should not connect any other devices to the i.LINK connector on the notebook.

❏ An i.LINK connection is not guaranteed with other compatible devices.

i.LINK[*] cables compatible with your VAIO Notebook include cables with the following part numbers: VMC-IL4415A (a 1.5-meter cable with a 4-pin connector at each end), VMC-IL4615A (a 1.5-meter cable with a 4-pin connector at one end and a 6-pin connector at the other). You can purchase these cables from your local retailer, through the Sony VAIO® Direct website (http://vaio.sonystyle.com) or by calling 1-888-315-7669 (toll free).

Hard Disk Drive Partition

In order to improve the performance of your computer's DVgate™ Motion software, the hard disk drive on your notebook has been formatted with two partitions, C and D. The C partition holds 40% and the D partition holds 60% of the entire drive capacity. DVgate saves files to the D partition. This prevents large video captures from consuming the available space on your C partition. To maintain optimum performance of DVgate, you should defragment or format the D partition regularly.

To defragment a partition

⚠ **Before you begin to defragment a partition, make sure you backup all files that you want to save.**

1   Click the Start button in the Windows® taskbar.

2   Click Programs>Accessories> System Tools> Disk Defragmenter. The Disk Defragmenter window appears.

Select the drive you want to defragment from the list, and click the Defragment button. See Windows® Help for more information on defragmenting.

Connecting an External Display

You can connect a computer display (monitor) or projector to your notebook or docking station.

To Connect a Monitor

Using the Notebook

1   Locate the monitor connector on the left side of the notebook.

2   Plug the display cable (optional) into the monitor connector.

✍ Ensure that one end of the power cord of the monitor is plugged into the display, and the other end is plugged into an AC outlet.

Connecting Monitor

Computer display

Power cord

MONITOR

Display cable (optional)
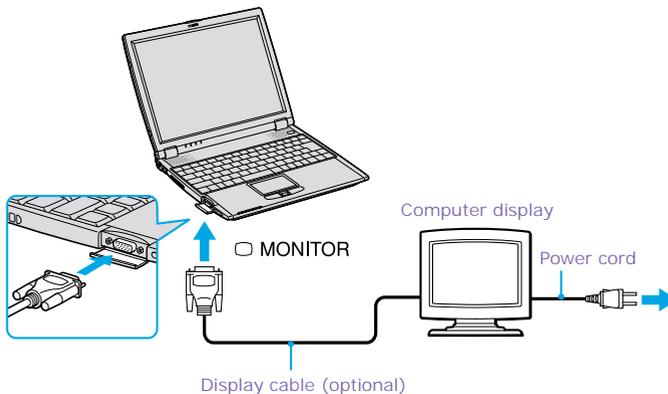
✍ You cannot use the Monitor connector on your notebook when the docking station is connected to the notebook.

Using the Docking Station

1   Locate the ▭ monitor connector on the rear panel of the docking station.

2 Plug the optional display cable into the monitor connector.

✍ Ensure that one end of the power cord of the monitor is plugged into the display, and the other end is plugged into an AC outlet.

Connecting Monitor

✍ See the manuals that came with your printer, and the docking station if applicable, for more information on printer installation and operation.

To Connect a Projector

You can use a projector, such as the Sony LCD Projector, as an external display.

Using the Notebook

1 Locate the monitor connector on the left side of the notebook.

2 Plug the RGB signal cable into the monitor connector.

3 Plug the audio cable into the green Headphone connector on the right side of the notebook.

Connecting projector

To Headphone connector

MONITOR

Projector

Audio cable
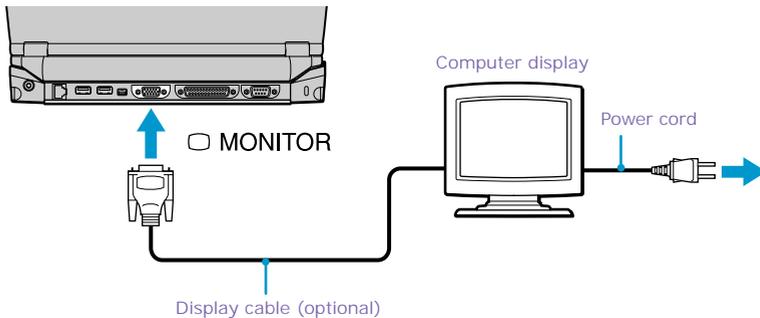
Power cord

RGB signal cable
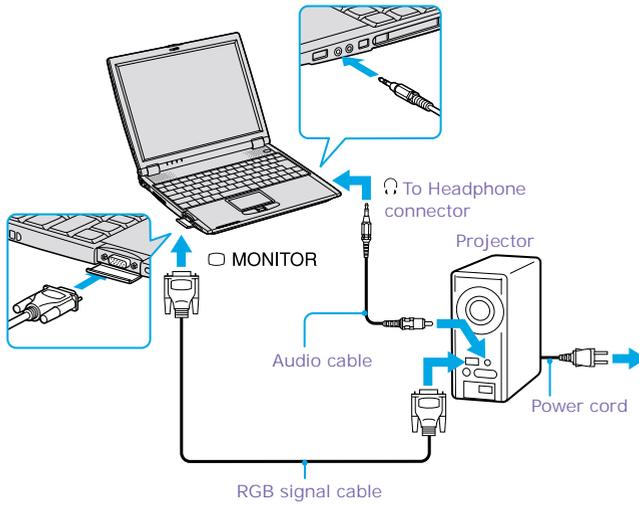
Using the Docking Station

1   Locate the ▭ monitor connector on the rear panel of the docking station.

2   Plug the optional monitor adapter into the monitor connector.

3   Plug the audio cable into the green Headphone connector on the right side of the notebook.

Connecting projector
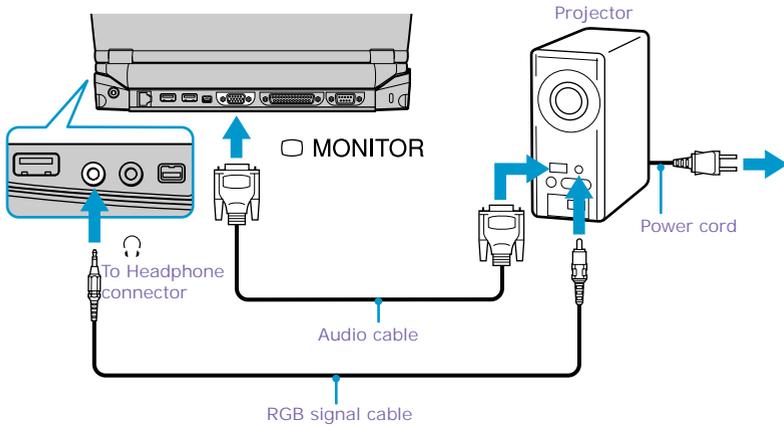
✎ Note the following:

❑   See the manual that came with your projector for more information on installation and operation.

❑   You cannot use the Monitor connector on your notebook when the docking station is connected to the notebook.

To Select a Display

When you connect an external display to the monitor connector, you can press Fn+F7 to toggle the output between the Liquid Crystal Display (LCD), the external monitor, or both devices. See "Selecting the Display Mode" for more information.

Connecting a Universal Serial Bus (USB) Device

You can connect USB devices such as an external mouse, keyboard, speaker, and microphone to your computer.

To Connect a USB Device

Using the Notebook

1 Locate a ⍦ USB connector on the notebook. There are two USB connectors on the notebook, one on the right side and one on the left side.

2 Plug on end of the USB cable into a connector and the other end into the USB device.

Connecting USB Device

USB mouse

To ⍦
USB

Using the Docking Station

1   Locate a ⅄ USB connector on the optional docking station. There are two USB connectors located on the back side of the docking station.

2   Plug one end of the USB cable into a connector and the other end into the USB device.

Connecting USB Device

USB mouse

To ⅄ USB
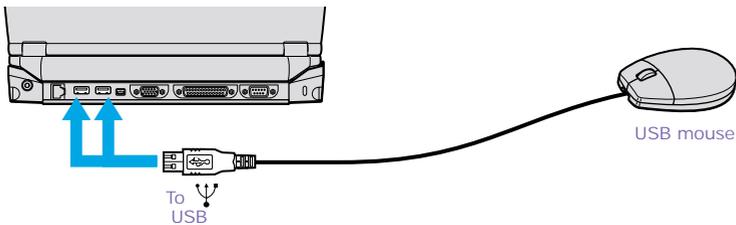
You can use an optional Sony USB mouse PCGA-UMS1 series (not supplied) with this computer. Since the USB mouse software driver is preinstalled in the computer, you simply plug the USB mouse into the USB connector to use it. One USB connector supports one USB device.

✍ See the manual that came with your USB device for more information on its installation and use.

Connecting External Speakers

You can connect external speakers to your notebook to enhance the sound quality of your computer.

✎ Note the following when connecting external speakers:

❑ Make sure your speakers are designed for computer use.

❑ Turn down the volume of the speakers before you turn them on.

❑ Do not place diskettes on the speakers; the magnetic field of the speakers may damage the data on the diskettes.

To Connect External Speakers

1 Locate the green Headphone connector on the right side of your notebook.

2 Plug the speaker cable into the Headphone connector.

Connecting Speakers to the Headphone Connector
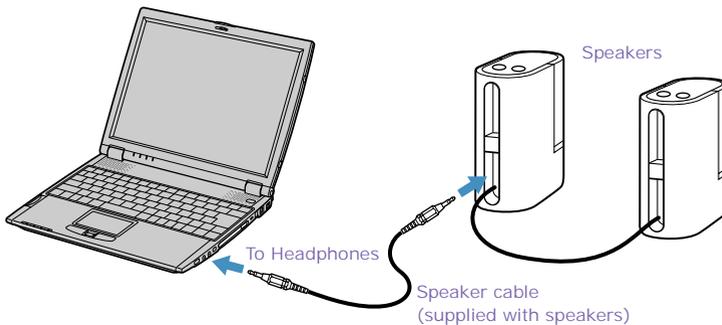
✎ See the manual that comes with your speakers for more information on installation and use.

Connecting an External Microphone

You can use an external microphone to enhance the quality of the sound input.

✎ Make sure your microphone is designed for computer use. The microphone should be compliant with the plug-in power microphone.

To Connect an External Microphone

1   Locate the red Microphone connector on the right side of your notebook.

2   Plug the microphone cable into the Microphone connector.

Connecting Microphone to Microphone Connector
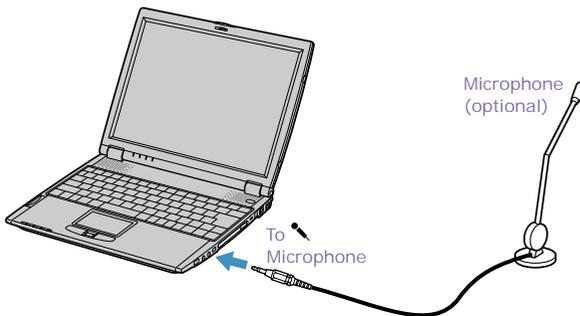
✎ See the manual that comes with your microphone for more information on installation and use.

Customizing Your VAIO® Notebook

This section briefly describes how you can change the default settings of your notebook to customize your computer. Refer to the Sony Notebook Setup Help, for more detailed information.

Displaying the Sony Notebook Setup Screen

To display the Sony Notebook Setup screen:

1   Click the Start button on the Windows® taskbar.

2   Point to VAIO and click Sony Notebook Setup.

Sony Notebook Setup Screen

3   Select the tab for the item you want to change. See "Sony Notebook Setup Tabs" .

4   After you finish making your changes, click OK.

Sony Notebook Setup Tabs

Tab	Description
About This Computer	Display system information, including memory capacity, serial number, and BIOS version.
Printer	Select printer port mode settings.
Initial Setting	Change the volume of the sounds that play while the operating system is loading. Select the order of drives and devices from which you want to load the operating system. You can specify the hard drive as well as other drives inserted into your computer.
Touchpad	When you connect an optional mouse to the Serial port of your computer, you can make your touchpad inactive. You can also customize the settings of your mouse using the mouse utility.
Power On Password	Set the password to secure your computer.
Enable Ports	Enable or disable ports. Disabling ports releases resources to the system. To change the serial or infrared settings, click Advanced on the Basic/Advanced tab.
Basic/Advanced	Switch between Advanced mode (additional screens with advanced settings) and Basic mode of display.

✎ For more information about each option, click Help on the Sony Notebook Setup screen to display the Help file.

Controlling Power Management

The PowerPanel utility allows you to control the power settings of your notebook and provides key information about system activity and battery life. The following sections briefly describe how to conserve your computer's battery power. You can also refer to PowerPanel Help for more detailed information. To activate a profile or command, see "Displaying Battery Information" .

Viewing the Power Management status icons

The Power Management status icons are displayed in the task tray at the lower right side of your screen. Move the pointer over the icons to see the tool tip that displays information about the active profile. The Battery status icon indicates the battery power level and the CPU status icon indicates the performance level of the CPU.

Activating the Power Management toolbar

1   Right-click on the taskbar at the bottom of the screen.

2   Select Toolbars from the pop-up menu, and then click Power Management. The Power Management toolbar appears on the taskbar.

The current profile icon is highlighted on the Power Management toolbar. It is the first icon farthest to the left, and its appearance changes depending on which power management profile is currently selected. To change the power management profile, click the current profile icon, then select a new profile from the pop-up list. See "Power Management Profiles" for a description of available options. To select another power management profile, click that icon in the Power Management toolbar.

✍ When you use the battery pack to power your notebook, your system selects the Maximum Battery Life power management profile by default. If you select a different power management profile while using battery power, the new profile is selected automatically the next time you use the battery pack to power your notebook.

   Refer to PowerPanel Help for information on customizing the Power Management toolbar.

Customizing Power Management Settings

You can customize power management settings, such as the system timer and the brightness of the screen. To customize a setting:

1 Click the Current Profile icon on the Power Management toolbar.

2 Select Edit/Create Profiles from the menu.

3 Click a profile whose setting you want to change, from the list in the left panel.

4 Double-click an item whose setting you want to change from the list in the right panel.

5 Click the desired setting.

6 Click the File menu, then click Save.

7 Click the File menu, then click Exit.

Power Management Profiles

The PowerPanel utility provides several predefined power management profiles. Each profile consists of a group of power management settings that are designed to meet specific power management goals—ranging from maximum power management to no power management. You can change the settings for any of the predefined profiles (except for the Disable Power Management profile), or you can create your own profile to suit your portable computing needs. The predefined profiles are:

Icon	*Description*
	Maximum Performance Provides the best system performance while still conserving power.
	Maximum Battery Life Provides power saving features to give you maximum battery life and good performance. It slows the computer and puts it into System Suspend mode after a specified time period.
	Disable Power Management Turns off all power management features such as System Suspend and System Hibernation modes. You can not change the settings of this profile.

Icon	Description
	AC Power The power management state when AC power is in use. Similar to the Power Management Off setting. Power Management automatically loads the AC profile unless you disable this feature.
	Games Disables the display and the Hard Disk Standby timer.
	Presentation Keeps the display on at all times while it conserves power. This option is ideal for slide show presentations. You can establish settings for LCD (Video) Standby, Hard Disk Standby, and System Suspend to optimize power management for your system.
	Camera Optimizes performance and power requirements for camera usage.
	DVD Optimizes performance and power requirements for DVD usage.
	Word Processing Optimizes power management with longer timeouts on the hard disk and display screen. You can also establish settings for LCD (Video) Standby, Hard Disk Standby, and System Suspend to optimize power management for your system.
	Spreadsheet Optimizes performance and power requirements for spreadsheet applications.
	Communications Extends battery life by initiating a quick display timeout. The Internal modem remains powered. You can also establish settings for LCD (Video) Standby, Hard Disk Standby, and System Suspend to optimize power management for your system.
	Automatic Profile Selection Automatically switches to a profile suitable for active applications.

Power Management Commands

PowerPanel also provides power management commands that you can use to activate specific power management functions and to control power for a specific device. You can use these commands to override a profile setting or initiate an immediate action.

Icon	Description
	System Suspend Puts the system into System Suspend mode, a power management state that saves the state of the system and peripheral devices in memory (RAM). Power consumption reduces to a minimum, and the system remains on. To return the system to the active state, press any key or the power button on your computer.
	System Hibernation Provides for the lowest level of power consumption. The system writes the state of the system and peripheral devices to the hard disk and turns off the system power. To return the system to the original state, use the power button to turn on power. The system saves the data in the Save to Disk Partition on the hard drive.
	LCD (Video) Standby (Windows Me™ only) Turns off the video display to save power. If you turn off the Video Standby timer, the display remains active except when the system enters System Suspend mode. The video display system is one of the largest consumers of power in the system.

Conserving Battery Power

When using the notebook with a battery, the LCD display and the hard drive can be set to switch off automatically to conserve battery power.

For details, see "Power Management Profiles" .

Displaying Battery Information

You can display detailed information for each of the batteries in your computer. The following sections briefly describe how to display your computer's general battery information. Refer to PowerPanel Help for more detailed information.

To Activate the Battery Information Toolbar

1   Right-click on the taskbar at the bottom of the screen.

2   Select Toolbars from the pop-up menu, then click Battery Information. The Battery Information toolbar appears on the taskbar.

You can also view the total capacity remaining in the battery by placing the pointer over the battery status icon in the task tray on the lower right side of the screen.

Battery Information Toolbar

Battery Information | 72% | 1:11

❏   **Percentage indicator —** Displays the percentage of the remaining battery capacity.

❏   **Time indicator —** Displays estimated time (hours/minutes) remaining before the battery fully drains, also referred to as the time-to-empty.

Battery Icon Descriptions

Battery Icon	*Battery Status*
	Charging
	Fully charged
	Discharging
	No battery

Displaying Detailed Battery Information

Double-click the battery icon on the task tray to display the Battery Information window. The screen appears displaying the Battery tab, which contains information such as the estimated time-to-empty and charging time.

Battery Information Window

Customizing the Battery Information toolbar and alarm system

You can customize the Battery Information toolbar to suit your portable computing needs, including modifications to the alarm settings. Refer to PowerPanel Help for more information.

Selecting the Display Mode

This notebook uses the Intel® video controller, which enables you to select the desired display when the notebook is connected to an external monitor. When you connect an external display, you can switch the display mode between your notebook's LCD display and the external monitor.

To select the display mode, proceed as follows: (See also "Connecting an External Display" .)

✍ Connect an external display before you turn on the computer.

1   Click the Start button, point to Settings, then click Control Panel. The Control Panel appears.

2   Double-click Display to access the Display Properties window.

3   Click the Settings tab, then click the Advanced button to display the Intel® 82815 Graphics Controller Properties dialog box.

Intel® 82815 Graphics Controller Properties Screen

4   Click the Intel® 82815 Graphics Technology tab, then click the Graphics Properties button.

5   Click the Driver Setting tab.

6   Ensure that the Synchronous Display Mode box is checked, then click
     Apply.

> ✎ You may not be able to display the notebook LCD screen and an external display or
> projector at the same time, depending on the types of computer displays and
> projectors you are using.
>
> If the display resolution of your computer is more than 800 x 600 dots, a part of the
> image will not show up on your TV display. To see the hidden area, move the cursor on
> your computer. To display the full image, change the display resolution settings to 640
> x 480 dots.
>
> Turn on the computer after you turn on the peripheral devices.

Changing the Window Design of Sony Software

To change the window design

1   Click the Start button, point to Settings, then point to Control Panel.

2   Click UI Design Selector.

3   Click << or >> and select the desired design.

4   Click Apply.

5   The "UI Design Selector" window design changes. The window design for
     your Sony software will match the "UI Design Selector" window.

6   To try another selection, click << or >> then click OK.

7   The UI Design Selector closes and the Sony software window design
     displays.

> ✎ This feature is available with UI Design Selector-compatible software only.

Using Dual Display function (Windows Me™ only)

The dual display function allows you to distribute portions of your desktop across separate displays. For example, if you have an external display attached to the monitor connector, your notebook's LCD screen and the external display can function as a single desktop. You can move the cursor off of one display and onto the other. This allows you to drag objects, such as an open application window or a toolbar, from one display to the other. This configuration of a single desktop distributed across separate displays is referred to as a virtual desktop.

Virtual Desktop

Virtual desktop

External monitor

Your LCD display
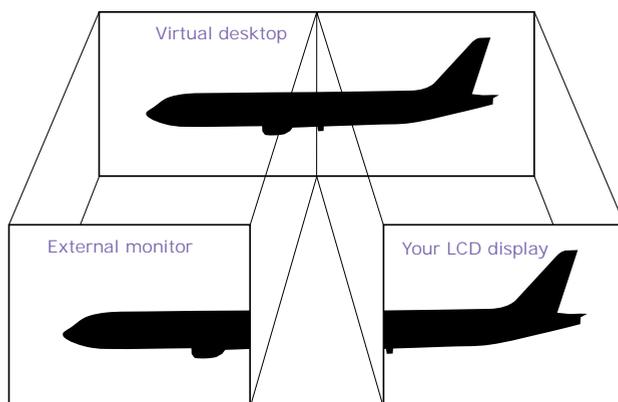
Selecting Dual Display Mode

1   Click the Start button on the Windows taskbar.

2   Point to Settings > Control Panel.

3   Click the Display icon. The Display Properties windows appears.

4   Click the Settings tab.

5   Click the Monitor shown as "2". The Monitor # 2 dialog box appears.

6   Click Yes to enable the second display.

7   Click Apply.

Setting Colors and Resolution for Each Display

You can set the display colors and resolution for each display that is part of a virtual desktop.

Follow steps 1 to 4 above to display the Display Properties screen. Select the display you wish to change (1 or 2) by clicking on the icon of the display. You can change colors by selecting an option from the Colors list. Use the slider in the screen area to change the resolution. Click OK or Apply. Click OK to confirm your changes.

Customizing the Virtual Desktop

You can customize the Dual Display mode by changing the position of the two displays that form the virtual desktop.

In the Display Properties screen, drag the icons of Monitor #1 or Monitor #2 to a new position that is relative to the other. The two display icons must be connected to create a virtual desktop. Click OK to apply the change.

Releasing the Dual Display Setting

Follow steps 1-4 in the section "Selecting Dual Display mode". Right-click on Monitor #2 and click on Enabled to release the setting.

✍ Some software is not compatible with Dual Display mode.

Changing the Window Design of Sony Software

To Change the Window Design

1   Click the Start button, point to Settings, and then point to Control Panel.

2   Click UI Design Selector.

3   Click << or >> and select the desired design.

4   Click Apply.

5   The "UI Design Selector" window design changes. The window design for your Sony software will match the "UI Design Selector" window.

6   To try another selection, click << or >> and then click OK.

7   The UI Design Selector closes and the Sony software window design displays.

✎ This feature is available with UI Design Selector-compatible software only.

Adding Memory

In the future you may want to install memory modules to expand the functionality of your computer. If your notebook has 64 MB of memory, you can increase memory to 192 MB; if your notebook has 128 MB of memory, you can increase memory to 256 MB. For memory upgrades, use only PC100(CL2) SDRAM SO-DIMM (gold lead contacts).

Related Safety Guidelines

⚠️ **Sony recommends memory upgrades be performed by an authorized Sony Service Center or Sony authorized agent. To find the nearest center or agent, see**
http://www.sony.com/pcsupport.

Make sure that you observe the proper safety precautions when you install a memory module in your computer. See the bulleted list below. Be careful when adding memory. Mistakes when installing or removing a memory module may cause a malfunction.

❑ The procedures described below assume familiarity with the general terminology associated with personal computers and with the safety practices and regulatory compliance required for using and modifying electronic equipment.

❑ Disconnect the system from its power source and from any telecommunications links, networks, or modems before you open the system or follow any of the procedures described below. Failure to do so may result in personal injury or equipment damage.

❑ Electrostatic discharge (ESD) can damage disk drives and other components. Perform the procedures described below only at an ESD workstation. If such a station is not available, do not work in a carpeted area, and do not handle materials that produce or hold static electricity (cellophane wrappers, for

example). Ground yourself by maintaining contact with an unpainted metal portion of the chassis while performing the procedure.

❑ Do not open the memory module package until you are ready to install the module. The package protects the module from ESD.

❑ Use the special bag for preventing ESD or use aluminum foil when you store the memory module.

To Install a Memory Module

1 Shut down your computer and disconnect all peripheral devices, such as your printer.

2 Unplug the computer and remove the battery packs.

3 Wait until the computer cools down. Then unscrew the two screws with the ⇐ mark on the bottom of your computer.
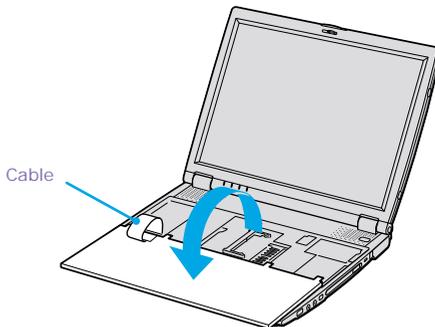
Screws on Bottom of Computer
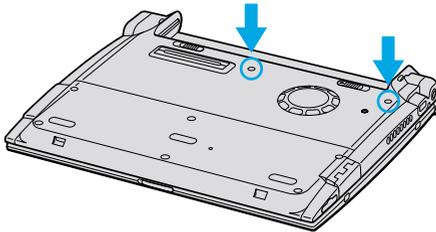
4   Slide the LCD lock lever and lift the cover. Slide the keyboard toward the LCD display, then lift it away slightly.

Lifting the Keyboard
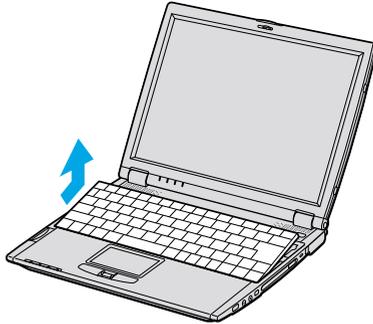
5   Lift the keyboard from the LCD display side, then gently turn it over on the touchpad space. Be careful not to detach the cable when lifting the keyboard.
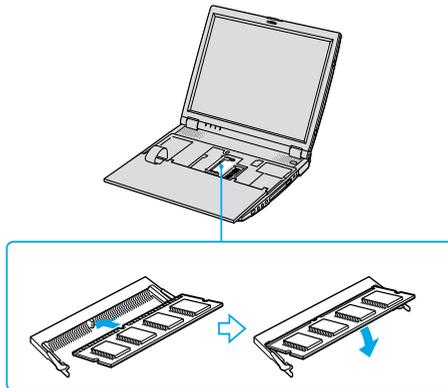
Turning the Keyboard

Cable

6   You must remove the existing memory module. Follow the instructions in "To Remove a Memory Module" .

7   Remove the memory module from its packaging.

8   Install the memory module.
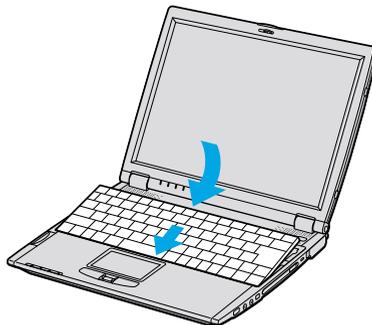
> ✎ Note the following:
>
> ❑   Be careful not to touch the other components on the motherboard.
> ❑   Be sure that both ends of the memory module click.

Installing the Memory Module

9   Gently replace the keyboard, then press it into your computer. Be careful not to detach the cable when lifting the keyboard.

Replacing the Keyboard

10   Close the computer cover, then tighten the screws on the bottom of the computer.

To Remove a Memory Module

1   Perform steps 1 to 5 of "To install a memory module."

2   Touch a metal object (such as the connector panel on the back of your computer) to discharge static electricity.

3   Remove the memory module.

4   Perform steps 8 and 9 of "To install a memory module."

About the Software on Your Notebook

Your VAIO notebook is ready to help you work, play, learn, and communicate as soon as you turn it on. This section provides you the following:

❑ *An overview of the various software that come with your computer and the activities you can perform with your software*

❑ *Details on your Sony application, driver, and system recovery CDs*

❑ *Software support information*

Overview of the Software on Your Notebook

Adobe Acrobat Reader®
Adobe Systems Inc.

Acrobat Reader software allows you to view, navigate, and print electronic documents in Adobe Portable Document Format (PDF)—an open file format that is intended to preserve the fidelity of documents created on all major computer platforms.

Adobe PhotoDeluxe® Home Edition (Windows Me only)
Adobe Systems Inc.

Create amazing photo effects with Adobe PhotoDeluxe. Without learning complex software, you can enhance, restore, and be creative with your photos. The software includes built-in guided activities, stock photos, clip art, and templates to assist you.

America Online®
America Online

America Online is a popular Internet online service. Stay in touch with family and friends with easy-to-use e-mail, manage your personal finances, get the latest news and sports scores, and chat with thousands of others who share your interests.

ArcSoft® PhotoPrinter™ 2000 Pro (Windows Me only)
ArcSoft, Inc.

ArcSoft PhotoPrinter 2000 Pro is an easy-to-use, advanced printing program that lets you quickly lay out multiple images in multiple sizes on a single sheet of paper. PhotoPrinter Pro offers a wide selection of templates including landscape, portrait, free style, mixed sizes, custom templates and more. The application includes enhancement tools and special effects for improving photos while giving you the ability to add text to any image.

CompuServe® 2000
CompuServe, Inc.

CompuServe is the most comprehensive source of organized business and educational information online today. CompuServe allows you to access the vastness of the Internet, without wasting time wading through it. Maximize your time online with CompuServe.

Drag'n Drop CD
DigiOn Inc. and Easy Systems Japan Ltd.

Drag'n Drop CD is designed to be the most simple software to make your own CD. Users can create their own best AudioCD, or data CD that can be read in many PCs. With Drag'n Drop CD you can also create your own backup CD from the original CD that you own.

DVgate™
Sony Electronics Inc.

Connect a digital video camera recorder to the i.LINK® connector and capture your own video clips and still images. You can edit the clips from your video, add others, and combine clips into new movie segments. You can also save your images in a variety of popular file formats.

EarthLink Network TotalAccess®
EarthLink Network, Inc.

An Internet Service Provider that supplies access, information, and assistance to its customers, introducing them to the Internet. Member benefits include e-mail, newsgroups, a personal start page, a free 6 MB web site, a member newsletter, and 24-hour technical support.

JogDial Utility
Sony Electronics Inc.

JogDial Utility (software) allows you to easily scroll, launch applications, access settings, and perform other useful functions by manipulating the Jog Dial (hardware) which is located near the touchpad.

McAfee® VirusScan®
Network Associates, Inc.

Protect your computer from viruses. VirusScan can detect viruses from floppy disks, Internet downloads, e-mail attachments, intranets, shared files, CD-ROMs, and online services.

Media Bar™
Sony Electronics Inc.

Media Bar software is your all-in-one solution for audio/video playback. Media Bar software handles all common computer multimedia formats and controls selected Sony devices. In addition to audio/video library cataloging and playlist management, Media Bar software includes digital video quality control and effects features. Media Bar software seamlessly integrates a variety of new media formats with an easy-to-use software interface.

Microsoft® Internet Explorer
Microsoft Corporation

Internet Explorer delivers the web the way you want it. It is safe, easy to use, and you can personalize how you access the web. Outlook Express and other tools in Internet Explorer also help you have a great experience when you are on the web.

Microsoft® Word 2000
Microsoft Corporation

Microsoft Word 2000 makes it easy to create common Web, e-mail, and print documents for use around the world. It embraces HTML as a first-class file format and extends this software's ease-of-use to the Web and e-mail. Word 2000 also extends that ease-of-use to international users, making it simple to create multilingual documents.

MovieShaker™
Sony Electronics Inc.

Sony's original MovieShaker software creates personal movies that have transitions, background music and text. Just import your video clips and "shake" with the click of a mouse. Your personal movies are easy to create and fun to share with family and friends. (See "MovieShaker™" .)

Netscape Communicator®
Netscape Communications

Netscape Communicator is an all-in-one Internet tool that makes it easy to browse the web, send Internet e-mail, chat, read newsgroups and compose great web documents.

OpenMG™ Jukebox (Windows Me only)
Sony Electronics Inc.

OpenMG Jukebox software enables you to import digital audio files by downloading audio files from Electronic Music Distribution (EMD) services over digital networks, such as the Internet. You can record audio CDs onto your hard drive in a variety of formats.

PictureGear™
Sony Electronics Inc.

This image management software displays images from your hard drive, a Sony Digital Still Camera, or a Sony Mavica® Camera. The images appear in a convenient light-table format, so that you can easily view the contents of an entire folder. (See "PictureGear™".)

PowerPanel
Sony Electronics Inc.

The PowerPanel utility controls the power management of your notebook computer and provides key information about system activity and battery life. Automatic power management selects the most appropriate profile, depending on the application with which you are working and the conditions of use. See the "PowerPanel" chapter or the PowerPanel Help file for details.

Prodigy Internet®
Prodigy Communications Corporation

An online service that helps you find what you need online faster and smarter. Prodigy delivers powerful online content such as sports scores, stock quotes, news, and easy access to Excite, plus quality customer service, all at a competitive price.

Quicken® 2001
Intuit, Inc.

Quicken is a fast, easy way to organize your finances. Quicken works just like your checkbook, so it is easy to learn and use. Quicken manages all your finances, bank accounts, credit cards, investments, and loans. You can even pay your bills online.

QuickTime™
Apple Computer, Inc.

QuickTime is the Apple technology that makes video, sound, music, 3D, and virtual reality come alive for your Internet browser and Windows.

RealPlayer®
RealNetworks, Inc.

RealPlayer is the RealNetworks video and audio player which lets you access 2,500 radio stations featuring music, news and sports.

RealProducer® G2
RealNetworks, Inc.

RealProducer converts your audio and video files, or live feeds, into RealAudio and RealVideo for the Internet or your intranet. RealProducer is easy to use, gives you better control over your content, and is packed with exclusive features. Featuring support for CD-quality RealAudio 8 and VHS-quality RealVideo 8, RealProducer is an excellent choice for both beginners and pros.

Smart Capture
Sony Electronics Inc.

Smart Capture is a fun new way to send multimedia messages via e-mail. Smart Capture manages the i.LINK connection between your computer and a Sony Digital Handycam® camcorder that supports the i.LINK interface. It allows you to capture compressed video or still images that you can save or share via e-mail. A smart solution to computer, digital audio/video and network convergence.

Smart Connect (Windows 2000 only)
Sony Electronics Inc.

Smart Connect allows you to use an i.LINK cable to connect your VAIO notebook to another computer that supports Smart Connect. You can then use one computer to copy, delete, and edit files on the other computer. You can also print from a printer attached to either computer.

VAIO Support Agent
Sony Electronics, Inc.

VAIO Support Agent provides immediate, interactive, on-line support.

WinDVD
InterVideo, Inc.

WinDVD is a simple-to-use DVD player that plays DVD titles, combining all the features you would expect to find in a standard consumer DVD player, in addition to some very advanced functionality, such as full VCD 2.0 support, full precision video decode, a choice of user interfaces, and video display options. WinDVD automatically determines the type of disc in the DVD drive and uses the correct playback method.

MovieShaker™

This application can be used to create fun and innovative movies without any knowledge of film editing. In a few simple steps, motion pictures can be combined with special effects, still images (pictures), and music files and then saved in a format most computers can play.

Main Window
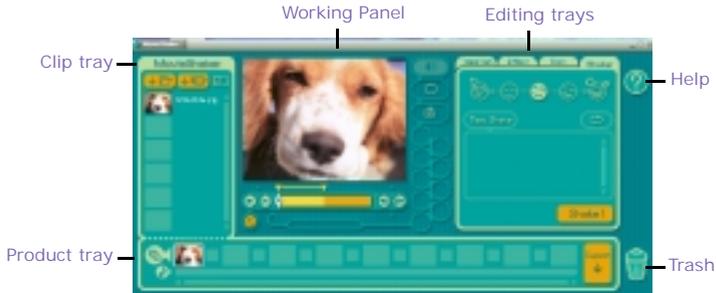
Importing Images and Sound Clips

1   Click ⬇📂 (File Import) or ⬇📼 (DV Import).

2   Find the file you want to add.

3   Select the file.

4   Click Open. The file is added to the Clip tray.

✎ Importing files over 75 seconds in length may cause MovieShaker to stop responding.

Create a Movie using Shaker

After adding clip(s) to the Clip tray, you can create a short movie using the Shaker feature. Shaker randomly select clips from the Clip tray to create a 30-second scene.

1   Click the Shake tab.

2   Select a mood by clicking a face in the Shaker tray.

Shaker Tray

3   Click **Shake!** . A thirty second scene is automatically generated and saved to the Product tray.

4   To preview, switch the Work Panel to Product tray mode and press play.

✎ Scenes created with Shaker begin with black frame and after processing are placed in the first available slot on the Product tray. Limit the number of scenes placed on the Product tray to 10 or less. MovieShaker may stop responding if too many scenes are placed on the Product tray.

Editing Clips and Scenes

You can edit your movie by adding effects and text, adjusting the color and contrast, and modifying the length of clips.

Working Panel

Adding effects to a scene or a clip:

1   Double-click the clip or scene to move it to the Working Panel.

2   Select the Effects tab from the Editing tray.

3   Drag and drop the Effect you want to add from the Effects tray to the Effects palette on the Working Panel.

✍ To preview an Effect, click on the clip in the Working panel monitor. Your clip displays with the new effect on the Effect tray monitor.

4   See help for instructions on adjusting effect duration and replaying clips/scenes.

Saving a Movie

1 Verify that the clip(s) you want to save is on the Product tray. See Help for more details on saving movies.

2 Click Export.

3 Select the format in which you want the document to be saved.

4 Click Next.

5 Locate the folder to which you want the file saved.

6 Name the file.

7 Click Save.

> ⚠ **Exporting movies may take a long time to complete—Saving movies as DV (Digital Video) takes the longest and Quick-Save is the fastest. MovieShaker can play video files up to 65 MB in length.**

✑ For DV playback and smooth video playback, we recommend the following resolution/ refresh rates: 1024 x 768/75 Hz or lower.

PictureGear™

PictureGear is a digital image management application that allows you to see all the images stored in any directory on your computer. Thumbnail views provide quick reminders of your pictures. Brighten, contrast, enhance, resize, crop, and color-correct your pictures. Create panoramic views, animations, screen savers, wallpaper, still pictures from MPEG, and even html photo albums.

Managing Your Pictures

Use the collection feature to manage your pictures.

1 Click the Folder tab and browse to locate your pictures.

2 Select the pictures you want to have in a collection.

3 From Collection menu, select Create New Collection.

4 Enter a name for the collection and then click OK.

Creating a Photo Album

1 Select the pictures you want to use to make an album.

2 From the Utilities menu, select Album Maker.

3 Choose the type of Album you want and click OK.

4 Now add more pictures, frames, text, and effects.

5 When you are finished, select Create Album in File menu or click the Create Album icon on the toolbar.

6 Designate the folder where you want to save the Album.

7 Enter the Target Album name, select Thumbnails and click OK.

8 The new album can be viewed using most internet browsers.

Using Panorama Maker

Panorama Maker stitches a group of still images into a 360 degree panoramic picture. The source images should be the same size and overlap 20%.

How to stitch a panoramic picture:

1   Gather the source images into the same folder or collection.

2   Select the images you want to use.

> ✍ We recommend 12 landscaped or 16 portrait pictures.

3   From the Utilities menu select Panorama Maker.

4   Select the correct lens and click OK. (If 35mm lens is selected, the prompt does not appear; to select a different lens, click the lens icon.)

5   Click the panoramic icon, near the bottom of the window.

6   Click Full Stitch.

Making Still Images and Panoramic from MPEG

1   Select the MPEG file.

2   From the Movie/Sound menu, select Scene break down.

3   Then select Movie Stitch, to create a panoramic picture.

Application, Driver, and System Recovery CDs

Your computer comes with the following application, driver, and system recovery CDs. (To use your recovery CDs, see "Using the Application Recovery CD(s)" .)

About Your Recovery CDs

Application Recovery CD(s)
Sony Electronics
This program allows you to reinstall individual applications and device drivers. Use it to restore corrupted or accidentally erased files.

Driver Recovery CD(s)
Sony Electronics
This program allows you to reinstall individual device drivers. Use it to restore corrupted or accidentally erased files.

System Recovery CD(s)
Sony Electronics
This program allows you to restore the software titles that shipped with your computer if they become corrupted or are erased accidentally. It can be used only to restore the hard disk of this Sony computer.

Using the Application Recovery CD(s)

The Application Recovery CD(s) allows you to reinstall individual applications if they become corrupted or are accidentally erased. Reinstalling an individual software title may correct a problem you are experiencing with your computer or software application; you may not need to reinstall the entire contents of your hard drive. If you need to reinstall all the software titles that shipped with your computer, use the System Recovery CD(s). See "Using the System Recovery CD(s)" .

You can also use the Application Recovery CD to install Windows 2000 drivers on your computer.

✍ You must be in Windows to run the Application Recovery CD. If you have any questions on using the Application Recovery CD, contact Sony Customer Support.

To use the Application Recovery CD(s)

1   Turn on your computer. If your computer is already on, close all applications.

2   When the Windows desktop appears, insert the Sony Application Recovery CD in the optical drive. The Application Recovery utility loads automatically.

3   When the Application Recovery menu appears, select the icon for the application you want to restore and then follow the on-screen instructions to complete the recovery process.

✎ Your system may include one or two Application Recovery CDs. If you have two Application Recovery CDs, insert the first CD to run the Application Recovery program. You may be prompted to insert the second CD, depending on the application you wish to restore.

Using the Driver Recovery CD(s)

The Driver Recovery CD utility allows you to reinstall individual drivers and repair software applications if they become corrupted or are accidentally erased. You can reinstall an individual driver to correct a problem that you are experiencing with your computer, hardware, or software application. VAIO Support Agent uses a vault feature on the Driver Recovery CD(s) to repair software applications.

✎ You must be in Windows to run the Driver Recovery CD utility.

To Use the Driver Recovery CD(s)

1   Turn on your computer. If your computer is already on, close all applications.

2   When the Windows desktop appears, insert the Driver Recovery CD in the optical drive. The Driver Recovery utility loads automatically.

3   When the Driver Recovery menu appears, follow the on-screen instructions to complete the recovery process.

To repair software applications using VAIO Support Agent

The Driver Recovery CD utility has an information vault that contains the original characteristics for the preinstalled software applications that are protected by VAIO Support Agent.

Using the System Recovery CD(s)

You can reinstall software titles that shipped with your computer if they are corrupted or erased. You may not need to recover the entire contents of your hard drive. If you experience a problem with your computer, reinstalling an individual device driver or software title may correct the problem. Use the Application Recovery CD(s) to reinstall individual applications or device drivers. See "Using the Application Recovery CD(s)" .

The System Recovery CD contains a backup copy of all the software originally installed on your hard disk drive. **It can be used only to recover the hard disk of the notebook you purchased.**

The System Recovery utility gives you Full Restore with Format, that is it formats the hard disk drive then restores all the original software.

> ! **Full Restore with Format removes all the information on the hard disk drive. You will lose any software you have installed and any other files you have created since you started to use your computer. This means you will have to reinstall any applications that were not included with the computer when you purchased it. If you have any questions on using the System Recovery CD, contact Sony Customer Support.**

To use the System Recovery CD(s)

1 Insert the Sony System Recovery CD in the optical drive.

2 Shut down your computer as described in "Shutting Down Your Notebook" .

3 Wait four seconds and turn on your computer.

4 Click OK to signify you have read and accept the Microsoft End-User License Agreement.

5 When the System Recovery menu appears, follow the on-screen instructions to complete the recovery process.

If your computer does not start from the Recovery CD

1 Press the power button and hold it for more than four seconds to turn off the computer.

2 Turn on the computer. When the Sony logo is displayed, press the F2 key. The BIOS setup menu screen appears.

3 Press the arrow keys to select the Exit menu.

4 Press the arrow keys to select "Get Default Values" and then press the Enter key. The message "Load default configuration now?" appears.

5 Check that "Yes" is selected, then press the Enter key.

6 Press the arrow keys to select "Exit" (Save Changes) and then press the Enter key. The message "Save configuration changes and exit now?" appears.

7 Check that "Yes" is selected, then press the Enter key. The computer restarts from the Recovery CD.

✍ Your system may include one or two System Recovery CDs. If you have two System Recovery CDs, insert the first CD to run the System Recovery program. You are prompted to insert the second CD once the information from the first CD has been installed.

The recovery process takes from 30 to 60 minutes to complete.

After recovering your system using the SRCD, you may be prompted to insert your ARCD after restarting Windows. Insert the ARCD to automatically complete recovery of your system.

Recovering Microsoft® Word 2000

If you recover your operating system using the System Recovery CD, Microsoft Word 2000 will not be recovered. Use the supplied Word 2000 CD-ROM to recover this application.

Software Support Information

Adobe Acrobat Reader®, Adobe PhotoDeluxe® Home Edition

Web site	http://www.adobe.com/
phone	206-675-6126 (fee-based support)
e-mail	techdocs@adobe.com
hours	M-F, 6 AM-5 PM PT

America Online® (America Online)

Web site	http://www.aol.com
phone	800-827-3338
hours	7 days a week, 24 hours a day

QuickTime™ (Apple Computer Inc.)

Web site	http://www.apple.com
phone	512-674-8700[*]
hours	7 days a week, 6 AM-6 PM PT

* Support is for 90 days after the original date of purchase for most Apple products.

CompuServe® 2000 (CompuServe, Inc.)

Web site	http://www.compuserve.com
phone	800-848-8990

Drag'n Drop CD (DigiOn Inc. and Easy Systems Japan Ltd.)

e-mail	contact@digion.com

EarthLink Network TotalAccess® (EarthLink Network, Inc.)

Web site	http://help.earthlink.net/techsupport/
phone	800-395-8410
e-mail	support@earthlink.net
hours	7 days a week, 24 hours a day

McAfee® VirusScan® (Network Associates, Inc.)

Web site	http://support.mcafee.com
phone	408-988-3832
e-mail	cybr@nai.com
hours	M-F 9AM-5PM Central Time

Netscape Communicator® (Netscape Communications Corporation)

Web site	http://www.netscape.com/
phone	888-4SONYPC (888-476-6972)[*]
hours	7 days a week, 24 hours a day

PhotoPrinter™ 2000 Pro (ArcSoft, Inc.)

Web site(s)	http://www.arcsoft.com http://www.photoisland.com
phone	510-440-9901
fax	510-440-1270
e-mail	techsupport@arcsoft.com
hours	M-F, 8:30 AM-5:30 PM PT

Prodigy Internet® (Prodigy Communications Corporation)

Web site	http://www.prodigy.com
phone	800-213-0992
hours	7 AM - 3 AM ET

Quicken® 2001 (Intuit Inc.)

Web site	http://www.intuit.com/support
phone	900-555-4688
hours	7 days a week, 24 hours a day

RealPlayer®, RealProducer® G2 (RealNetworks, Inc.)

Web site	http://www.realnetworks.com/
phone	206-674-2681
fax	206-674-3586
e-mail	http://service.real.com (online form)
hours	M-F, 8 AM-5 PM PT

Sony Applications (Sony Electronics, Inc.)

Web site	http://www. sony.com/pcsupport
phone	888-4SONYPC (888-476-6972)[*]
hours	7 days a week, 24 hours a day

* Support from 1-888-4SONYPC is free of charge for 90 days after the original date of purchase.

Windows 2000 Operating System, Internet Explorer, Word 2000 (Microsoft Corporation)

Web site	http://www.microsoft.com/support/
phone	888-4SONYPC (888-476-6972)[*]
hours	7 days a week, 24 hours a day

* Support from 1-888-4SONYPC is free of charge for 90 days after the original date of purchase.

WinDVD (InterVideo, Inc.)

Web site	http://www.intervideo.com/jsp/Support.jsp
e-mail	support@intervideo.com

Sony Service Center

For the Sony Service Center nearest you, call 1-888-4SONYPC
(1-888-476-6972) or find Sony Customer Service on the Web at
http://www.sony.com/pcsupport.

Troubleshooting

This section describes how to solve common problems you may encounter when using your notebook. Since many problems have simple solutions, try these suggestions before you contact Sony PC Support (http://www.sony.com/pcsupport).

Troubleshooting Your Notebook

My notebook does not start.

❑ Check that the notebook is plugged into a power source and that it is turned on. Check that the power indicator on the front panel of the notebook indicates that the power is on.

❑ Check that the battery packs are inserted properly and that they are charged.

❑ Make sure there is no diskette in the floppy disk drive.

❑ Confirm that the power cord and all cables are connected firmly, as described in "Connecting a Power Source" .

❑ If you plugged the notebook into a power strip or UPS, make sure the power strip or UPS is turned on and working.

❑ If you are using an external display, check that it is plugged into a power source and turned on. Check that the brightness and contrast controls are adjusted correctly. See the manual that came with your display for details.

❑ Moisture condensation may have occurred. Do not use the notebook for at least one hour and then turn on the notebook.

❑ Take the battery pack off the notebook, unplug the power cord and plug it again, then turn on the power.

❑ If you shut down your notebook using a series of program errors, the power control button may not function. Push the Reset switch on the back of your notebook with a thin, pointed object to start your computer. If your notebook

still does not start, remove the AC adapter and battery pack and wait one minute, then reattach them and press the power button.

When starting my notebook for the first time, the VAIO InitManager dialog box appears. (Windows Me only)

Select "OK" to begin initial setup. If you do not execute the initial setup, you cannot use part of VAIO original hardware functions such as Power Management tool, scroll function of touchpad, and keyboard shortcut key function combined with the Fn key.

My notebook starts, but my system doesn't start properly.

When the internal backup battery is low on power, your system may not start properly, and the message "Press <F1> to resume, <F2> to setup" may appear at the bottom of the screen. In such a case, proceed as follows:

1   Press F2. The BIOS Setup menu appears.

2   Set the date (month/day/year). Press Enter.

3   Press ⬇ to select System Time, then set the time (hour: minute: second). Press Enter.

4   Press ➡ to select Exit, then press ⬇ to select Get Default Values. The message "Load default configuration now?" appears.

5   Select Yes and press Enter.

6   Select Exit (Save Changes), then press Enter. The message "Save Configuration changes and exit now?" appears.

7   Select Yes, then press Enter. The notebook restarts.

My notebook starts, but the message "Operating system not found" appears and Windows does not start.

❑   Make sure there is no diskette in the floppy disk drive (non-bootable).

❑   If a non-bootable diskette is in the drive, proceed as follows:

1   Turn off the notebook, then remove the diskette.

2   Restart the notebook and confirm that Windows starts properly.

❏ If Windows still does not start, follow the steps below to initialize the BIOS:

1 Remove any diskette from the floppy disk drive.

2 Turn off the notebook.

3 Remove any peripheral devices connected to the notebook.

4 Turn on the notebook.

5 Press the F2 key when the Sony logo appears, to access the BIOS setup menu.

6 Press the directional arrow keys to select the Exit menu.

7 Press the arrow keys to select "Get Default Values" then press Enter. The message "Load default configuration now?" appears.

8 Select Yes, then press Enter.

9 Use the directional arrow keys to select "Exit" (Save Changes), then press Enter. The message "Save configuration changes and exit now?" appears.

10 Select Yes, then press Enter. The notebook restarts.

✎ If your notebook continues to display the message "Operating system not found", and Windows does not start, contact Sony Customer Support.

My notebook stops responding or does not shut down.

It is best to use the Shut Down command on the Windows Start menu to shut down your notebook. Using other methods, including those listed below, may result in loss of unsaved data.

❏ Click the Start button on the Windows taskbar, then click Shut Down, then click Restart.

❏ (Windows Me) If the preceding step does not work, press Ctrl+Alt+Delete twice to restart the notebook.
(Windows 2000) If the preceding step does not work, press Ctrl+Alt+Delete and click Shut Down on the Windows Security screen to restart the notebook.

❏ If the preceding step does not work, press and hold the power button for at least four seconds to turn off the power.

❏ If the preceding step does not work, unplug the notebook from the AC adapter and remove the battery pack from your notebook.

❑ (Windows Me) If your notebook stops responding while playing a CD or DVD, stop the CD/DVD and press Ctrl+Alt+Delete twice to restart the notebook.
(Windows 2000) If your notebook stops responding while playing a CD or DVD, press Ctrl+Alt+Delete and click Shut Down on the Windows Security screen to restart your notebook.

✍ Pressing Ctrl+Alt+Delete or turning off the notebook with the power switch may result in data loss in files that are currently open.

I cannot see the "Removable Disk (S:)" in "My Computer" on the Desktop.

1 Click Start, point to Settings, and select Control Panel to open the Control Panel window.

2 Double-click System to access the System Properties window.

 If you cannot find System, click Display Control Panel options in the Control Panel window.

3 Select the Device Manager tab.

4 Click [Refresh].

My notebook is unstable.

Your notebook's operating system may become unstable if a lower power state, such as Hibernate, is initiated then changed before the notebook completely enters the lower power state. To restore the notebook to its normal operating stability:

1 Close all open applications.

2 Press and hold the power button for four seconds or longer to shut down the notebook.

The sound of my notebook's fan is too loud.

Use the PowerPanel utility to change the Thermal Control Strategy setting to Quiet. This setting slows down the CPU speed. See PowerPanel Help for more information.

Troubleshooting the Docking Station

I cannot operate the optical drive in the docking station, when the docking station is connected to the notebook.

Follow these steps to set the i.LINK network switch.

1 Disconnect your notebook from the docking station.

2 Disconnect the AC adapter and all cables from your docking station.

3 Set the i.LINK network switch on the bottom of the docking station to the unmarked side, with a thin pen tip.

4 Connect the docking station to the notebook.

5 Turn on your notebook.

> ✍ Do not set the i.LINK network switch when the notebook is on. This causes the notebook to malfunction.
>
> Set the i.LINK network switch after removing all cables connected to the docking station.

I cannot operate the optical drive in the docking station, when the docking station is connected to the notebook and the notebook is connected to another computer via i.LINK.

Set the i.LINK network switch at the bottom of the docking station to the marked
● side. See "If Your Notebook is Connected to the Optional Docking Station"
for details.

A warning message appears and I cannot disconnect the docking station, even after following procedure for disconnecting the docking station.

Disregard the warning message, and continue to disconnect the docking station.

I cannot remove the disc.

You cannot remove the disc when the computer is in power saving mode. Return to normal mode, then press the Eject button.

The disc tray does not eject even after I press the Eject button.

Open the tray by inserting a sharp, pointed object in the manual eject hole.

Troubleshooting the LCD Screen

My LCD screen is blank.

❑   Verify that the notebook is plugged into a power source and that it is turned on.

❑   Verify that the power indicator on the notebook is on.

❑   Verify that the battery pack(s) is inserted properly and is charged.

❑   The notebook may be in LCD (Video) Standby mode. Press any key to activate the screen.

❑   The display mode may be set to external display mode. Press and hold the Fn key while pressing F7 several times.

My LCD screen continues to show the previous screen.

Press the Windows key and D key twice to refresh the screen.

The image on my connected external display is not centered or sized properly.

Use the controls on your external display to adjust the image. See the manual that came with your display for more information.

I want to change the video resolution of my display.

1   Click Start, point to Settings, point to Control Panel, then double-click the Display icon. The Display Properties dialog box appears.

2   Click on the Settings tab.

3   Move the Screen Area slider to change your video resolution.

Troubleshooting the Mouse and Touchpad

My mouse does not work.

❑ If you are using an external mouse, verify that the mouse is plugged into the mouse connector. See "Connecting a Universal Serial Bus (USB) Device" for details.

❑ If you are using an optional Sony USB mouse PCGA-UMS1 series, verify that the mouse is plugged into the USB connector.

My touchpad does not work properly.

❑ You may have disabled the touchpad without connecting a mouse to the notebook. To enable the touchpad:

1   Click Start > Programs > Sony Notebook Setup.

2   Select the Touchpad tab.

3   Click Use touchpad and click OK.

❑ If your touchpad is interpreting a single tap as a double-click, adjust the button assignments as follows:

1   Click Start, point to Control Panel, then double-click on the Mouse icon. The Mouse Properties dialog box appears.

2   Change the button assignments in the Mouse Properties dialog box. (One of the buttons is assigned to the double-click action.)

The pointer does not move (while using the Touchpad or Mouse).

Click the Start button on the Windows taskbar, select Shut Down to display the Shut Down Windows dialog box, then press Enter.

❑ (Windows Me) If you cannot turn off your notebook as described in the step above, press Ctrl+Alt+Delete twice to restart the notebook.
(Windows 2000) If you cannot turn off your notebook as described in the step above, press Ctrl+Alt+Delete and click Shut Down on the Windows Security screen to restart the notebook.

❑ If you cannot restart your notebook as described in the step above, press and hold the power button for more than four seconds to turn off the notebook.

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❑ If the pointer does not move while playing a disc, press Ctrl+Alt+Delete to stop playback and restart the notebook.

Troubleshooting Drives, PC Cards, and Peripheral Devices

My floppy disk drive can not write to a diskette.

❑ If the diskette is write-protected, disable the write-protect feature or use a diskette that is not write-protected.

❑ Verify that the diskette is properly inserted into the floppy disk drive.

My optical drive is not playing my CD or DVD properly.

❑ Make sure the label of the disc is facing up.

❑ If the disc requires software, make sure the software is installed according to the manufacturer's instructions.

❑ A dirty or damaged disc may cause the notebook to stop responding while it tries to read the disc. If necessary, restart the notebook, remove the disc, and check disc for dirt or damage.

❑ If you see video but can not hear audio, check all of the following:

    ❑ Check that your optical drive does not have the mute setting enabled.

    ❑ Check the volume setting in the audio mixer.

    ❑ If you are using external speakers, check the volume settings, and then check the connections between your external speakers and the notebook.

    ❑ Click Start, point to Settings, point to Control panel, then double-click System. The System Properties dialog box appears.

    ❑ Click the Device Manager tab.

    ❑ Verify that the correct drivers are installed properly.

❑ Do not use adhesive labels to identify the CD. The label may come off while the disc is in use in the optical drive and cause the drive to malfunction.

❑ If a region code warning appears when you try to use your optical drive, it may be that the DVD you are trying to play is incompatible with the optical drive. Verify that the region code listing on the DVD packaging is region "1" or "0".

❏ Moisture condensation may have occurred. Leave the notebook idle for at least 1 hour with the notebook turned on.

The DVD videos cannot be played properly. (Windows Me only)

Follow these steps, to correct this condition.

1 Click Start, point to Settings, and click Control Panel to access the Control Panel window.

2 Double-click Display to access the Display Properties dialog box.

3 Click the Setting tab.

4 Click the Advanced button.

5 Click the Adapter tab, and set RefreshRate to 60 Hz.

6 Click OK.

My optical drive tray does not open.

❏ Make sure the notebook is turned on.

❏ Press the Eject button on the optical drive.

❏ If the Eject button does not work, open the tray by inserting a thin pen tip in the hole to the right of the Eject button.

I cannot use digital video (DV) devices. The message "DV equipment seems to be disconnected or turned off" appears.

❏ Verify that the DV device is turned on and that the cables are properly connected.

❏ If you are using multiple i.LINK[*] devices, the combination of the connected devices may cause unstable operation. In this case, proceed as follows:

1 Turn off your notebook and all connected devices.

2 Disconnect the devices that are not in use.

3 Ensure that all other devises are properly connected.

4 Restart your notebook.

My PC card does not work.

❑ Make sure the PC card is compatible with Microsoft® Windows®.

❑ Use the Sony Notebook Setup utility to disable devices you are not currently using.

Troubleshooting the Software

My software program stops responding or crashes.

Contact the software publisher or designated provider for technical support. See "Software Support Information" .

When I click an application icon, the message "You must insert the application CD into your optical drive" appears and the software does not start.

❑ Some titles require specific files that are located on the application CD. Insert the disc and try starting the program again.

❑ Make sure you place the CD in the tray with the label side facing up.

I hear background "noise" while using Windows Media Player to play my music CDs.

Sony suggests using the preinstalled Media Bar software to play audio CDs.

SmartCapture software does not start. (Windows Me only)

Follow these steps to correct this condition.

1   Click Start, point to Settings, and click Control Panel to access the Control Panel window.

2   Double-click Display to access the Display Properties dialog box.

3   Click the Setting tab.

4   Click the Advanced button.

5   Click the Adapter tab, and set RefreshRate to 60 Hz.

6   6. Click OK.

Troubleshooting the Modem

My modem does not work.

❏ Check that the phone line is plugged into the line jack. See "Using a Phone Line" for details.

❏ Check that the phone line is working by plugging the line in an ordinary phone and listening for a dial tone.

❏ Verify that the phone number the program is dialing is correct.

❏ Verify that the software you are using is compatible with the notebook's modem. (All preinstalled Sony programs are compatible.)

My modem connection is slow.

Your notebook is equipped with a 56K/V.90 compatible modem. Many factors may influence modem connection speed, including telephone line noise or compatibility with telephone equipment (such as fax machines or other modems). If you think your modem is not connecting properly to other PC-based modems, fax machines, or your Internet Service Provider, proceed as follows:

❏ Have your phone company verify that your phone line is free from any line noise.

❏ If your problem is fax-related, check that there are no problems with the fax machine you are calling and that it is compatible with fax modems.

❏ If you are having a problem connecting with your Internet Service Provider, check that the ISP is not experiencing technical problems.

❏ If you have a second phone line available, try connecting the modem to that line.

Troubleshooting audio

My speakers have no sound.

❏ If the built-in speakers are turned off, press Fn+F3 or use the Jog Dial control to turn on the speakers.

❏ If the speaker volume is turned to the minimum, press Fn+F4, then press ⌄ or ➜ to increase the volume, or you can use the Jog Dial control to control the volume.

❑ If nothing is displayed when you press Fn+F3 or Fn+F4, proceed as follows:

1 Click Start, point to Settings, point to Control panel, then double-click System. The System Properties dialog box appears.

2 Click the Device Manager tab.

3 Set the sound device to enable.

❑ If your notebook is powered by batteries, verify that the battery packs are inserted properly and that they are charged.

❑ If you are using an application that has its own volume control, verify that the volume is turned up.

❑ Check the volume controls in Windows®.

❑ If you connect external speakers:

❑ Verify that the speakers are properly connected and the volume is turned up.

❑ If the speakers have a mute button, make sure the button is off.

❑ If the speakers are powered by batteries, verify that the batteries are inserted properly and that they are charged.

❑ If you have connected an audio cable to the Headphone connector, disconnect the cable.

My microphone does not work.

If you are using an external microphone, verify that the microphone is plugged into the Microphone connector. See "Connecting an External Microphone" for details.

Troubleshooting the Printer

I cannot print.

❑ The default setting for the printer port mode is correct for most printers. If you cannot print, try changing the printer port mode. In the Sony Notebook Setup screen, select the Printer tab. If the printer port mode is set to ECP, change it to bi-directional; if the printer port mode is set to bi-directional, change it to ECP. See "Displaying the Sony Notebook Setup Screen" for details on using Sony Notebook Setup.

❑ Your connected printer may not function after the notebook resumes from a power saving mode. If this occurs, proceed as follows to reset the printer connection:

Windows Me Only

1   Right-click My Computer icon on the desktop, then select Properties.

2   Click the Device Manager tab.

3   Select Refresh, then click OK. The printer should function properly.

Windows 2000 Only

1   Click My Computer icon on the desktop, then click on the Control Panel folder.

2   Click on the Printers folder.

3   Right-click on the icon of the printer that is malfunctioning, then select Properties to access the Properties window.

4   Click OK to close the Properties window. The printer should function properly.

Getting Help

Sony provides several support options for your Sony computer. When you have questions about your computer and the preinstalled software, check these sources for answers, in the following sequence:

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1   *VAIO® Notebook User Guide*

This User Guide contains information on product specifications and on how to get the most from your computer, find help, customize your notebook, and solve common problems.

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2   *Manuals and online help files that may accompany your preinstalled software*

Most of the manuals for preinstalled software are located on your hard disk drive as online help files. You can access the online help files from the Help menu in the specific application. A printed manual is available for some applications.

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3   *VAIO Support Agent*

VAIO Support Agent can be accessed from the Windows desktop. Using advanced diagnostic technology, Sony's VAIO Support Agent runs scheduled protections of your applications, network settings, and other important software settings. When your software is protected, you can use VAIO Support Agent to repair software problems by restoring your software to any of the previously protected states.

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4   *Sony PC Support*

This service provides instant access to information on commonly encountered problems. Enter a description of your problem and the Knowledge Database searches for the corresponding solutions online. You can access the Sony PC Support at: http://www.sony.com/pcsupport

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5   *Sony Fax-on-Demand*

This service, which requires a fax machine or your fax software, provides answers to commonly asked questions. You can use this automated service to request a list of available topics then select the topics that you want to receive. To contact the Sony fax-on-demand service, call:
1-888-4SONYPC (1-888-476-6972)

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6   *Sony Customer Support*

Software support is available free of charge for 90 days after the original date of purchase. You can call and speak with a Sony Customer Support Representative without using your computer by calling:
1-888-4SONYPC (1-888-476-6972)

Specifications

The following tables detail the hardware specifications for your notebook and the optional docking station.

Notebook Hardware Specifications

Model	PCG-R505TE/PCG-R505TEK	PCG-R505TS/PCG-R505TSK
Processor	Mobile Intel® Pentium®III processor 750 MHz* featuring Intel® SpeedStep™ Technology†	Mobile Intel® Pentium®III processor 850 MHz* featuring Intel® SpeedStep™ Technology†
L2 Cache Memory	256KB (on Die)	
Hard Disk Drive C/D Partition (Approximate)	15 GB‡ (40% and 60%)	20 GB‡ (40% and 60%)
Standard RAM	64 MB SDRAM, expandable to 320 MB	128 MB SDRAM, expandable to 384 MB
LCD Screen	12.1" XGA TFT	
MPEG	Available	
Graphics	Intel® 815EM Integrated Graphic	
Audio	• Windows® sound system compatible, 3D surround • Analog devices AD1881A	
Sound Capabilities	16-bit CD-quality stereo sound	
Modem	V.90/K56flex data/fax compatible modem**	
Telecommunication Capabilities	Data/fax send/receive	
Expansion Capabilities	One type II card with CardBus support	

Notebook Hardware Specifications

Model	PCG-R505TE/PCG-R505TEK	PCG-R505TS/PCG-R505TSK
Built-in Capabilities	• Stereo speakers • Touchpad • Center Jog Control	
Connection Capabilities	• i.LINK® (IEEE1394) S400 connector[††] • Ethernet (10Base-T/100Base-TX) Network jack (RJ-45) • 2 USB ports • VGA monitor port • Docking connector • Modem (RJ-11) jack • Microphone jack • DC IN • Headphone jack • Memory Stick® media slot	
Supplied Accessories	• Rechargeable battery • AC adapter and power cord	
Power Source	19.5V DC/AC 100-240V	
Power Management	• Energy Star compliant • Advanced Configuration and Power Interface (ACPI)	
Battery	Lithium-ion	
Dimensions	11.0"(w) x 0.90"(h) x 9.40"(d) (279.5 mm x 23.0 mm x 239mm)[‡‡]	
Weight	3.75 lbs. (1.7 kg) (with supplied battery)	
Operating Temperature	40° F to 95° F (5° C to 35° C), temperature gradient less than 18° F (-10° C) per hour	
Operating Humidity	20% to 80% (not condensed), provided that humidity is less than 65% at 95° F (35° C), hygrometer reading of less than 84° F (29° C)	
Storage Temperature	4° F to 140° F (-20° C to 60° C), temperature gradient less than 18° F (-10° C) per hour	
Storage Humidity	10% to 90% (not condensed) provided that humidity is less than 20% at 140° F (60° C), hygrometer reading of less than 95° F (35° C)	

*   MHz denotes microprocessor internal clock speed; other factors may affect application performance.

†   The processor may be reduced to a lower operating speed when operating on battery power.

‡   GB means one billion bytes when referring to hard drive capacity. Accessible capacity may vary.

** Maximum speed for faxing is 14.4 kbps. Your modem is capable of downloading at 53 kbps. Your online service or Internet Service Provider, however, may not support this technology or operate at this speed.

†† i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and i.LINK-compatible devices. All products with an i.LINK connection may not communicate with each other.
Please refer to the documentation that came with your i.LINK-compatible device for information on operating conditions and proper connection. Before connecting i.LINK-compatible PC peripherals to your system, such as CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

‡‡ Height measured at the thinnest point. Height at the thickest point is 1.15" (29.3 mm).

Specifications are subject to change without notice

Optional Docking Station Hardware Specifications

Model	DVD Docking Station (PCGA-DSD5)	CD-RW/DVD Docking Station (PCGA-DSM5)
Optical Drive	24x maximum CD-ROM reading 8x maximum DVD-ROM reading [*]	24x maximum CD-ROM reading 8x maximum CD-R writing 4x maximum CD-RW writing 8x maximum DVD-ROM reading [*]
Floppy Disk Drive	3.5" 1.44 MB/720 KB	
Connectors	• i.LINK® (IEEE1394) S400 connector[††] • Ethernet (10Base-T/100Base-T) Network jack (RJ-45) • Printer port • Serial port • 2 USB ports • VGA monitor port • Docking connector • DC IN	
Dimensions	11.0"(w) x 0.8" (0.9" backside) (h) x 9.3"(d) (279.5 mm x 18.5 mm (21.5 mm backside) x 239 mm)	
Weight	2.27 lbs. (1.03 kg)	2.38 lbs. (1.08 kg)

* If a region code warning appears when using the optical drive, the DVD you are trying to play maybe incompatible with the DVD player drive in your VAIO notebook. Region code indicators such as "1" or "ALL" are labeled on some DVDs to indicate what type of player can play the discs. Unless "1" or "ALL" is identified on your DVD or its packaging, you cannot play the disc on this player.

Specifications are subject to change without notice.

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